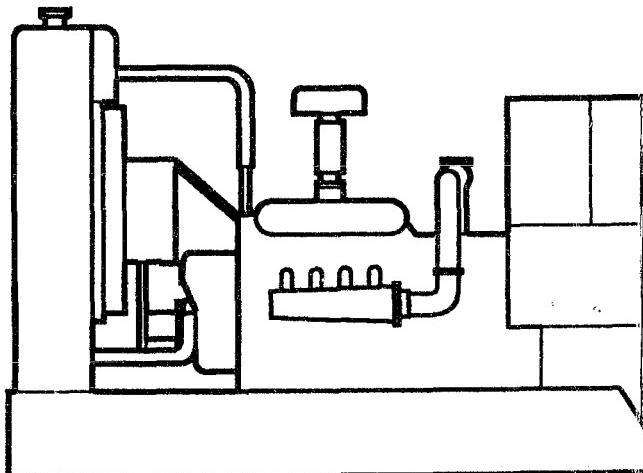


Onan

PARTS CATALOG

EN Generating Set



**928-0226
2-92 (Spec E-F)
Replaces 9-90 (Spec E-F)
Printed in U.S.A.**

Introduction

This Parts Manual applies to the Generator Set(s) Listed below. The illustrations are arranged in an assembly of related parts, and each part or assembly is identified by a Reference Number. All parts illustrated are typical, and unless otherwise mentioned in the description column of the parts list, the parts are interchangeable between all models.

These typical illustrations are subject to change and reflect only the latest replacement for the original factory installed parts. The Right and Left sides of the Generator Set are determined by FACING the engine end (FRONT) of the Set.

Set Data Table

MODEL IDENTIFICATION	RATING	RPM RATING	BATTERY VOLTAGE
55.OEN - */ # @	55,000 WATTS	1800 RPM	12 VDC
60.OEN - */ # @	60,000 WATTS	1800 RPM	12 VDC
70.OEN - */ # @	70,000 WATTS	1800 RPM	12 VDC

Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
B, 3	120/240	60	3	1	
E, 6D	240/480	60	4	3	
F, 7	220/380	60	4	3	
H, 9X	347/600	60	4	3	
L, 15	120/240	60	12	1	
L, 15	120/208	60	12	3	+
	120/240				+
	127/220				
	139/240				
	240/416				
	254/440				
	277/480				
N, 53	120/240	50	3	1	
Z, 515	110/220	50	12	1	+
Z, 515	115/230				
	110/190	50	12	3	+
	110/220				
	115/200				
	115/230				
	120/208				
	127/220				
	220/380				
	230/400				
	240/416				
	254/440				

* - Voltage Codes follow Model Letter designations.

- Specification Number: Number 1 is Standard, all others indicate variations.

@ - Specification Letter: Letter advances (A to B, B to C, etc) with major manufacturing changes.

+ - These Generators are Reconnectible, refer to Operator's Manual for wiring data.

Engine Replacement Parts

All Engine replacement parts must be ordered from the engine manufacturer, except those modified or added by Onan. When ordering engine parts, refer to the engine manufacturer's nameplate and supply the Model, Specification, Serial Numbers and other available information. Refer to the engine manufacturer's manuals for your nearest authorized parts distributor or parts center; or contact the Onan Distributor from whom you purchased this Set, for assistance in ordering replacement parts. Ford Model Number for this set is 460-GP6005AS030B.

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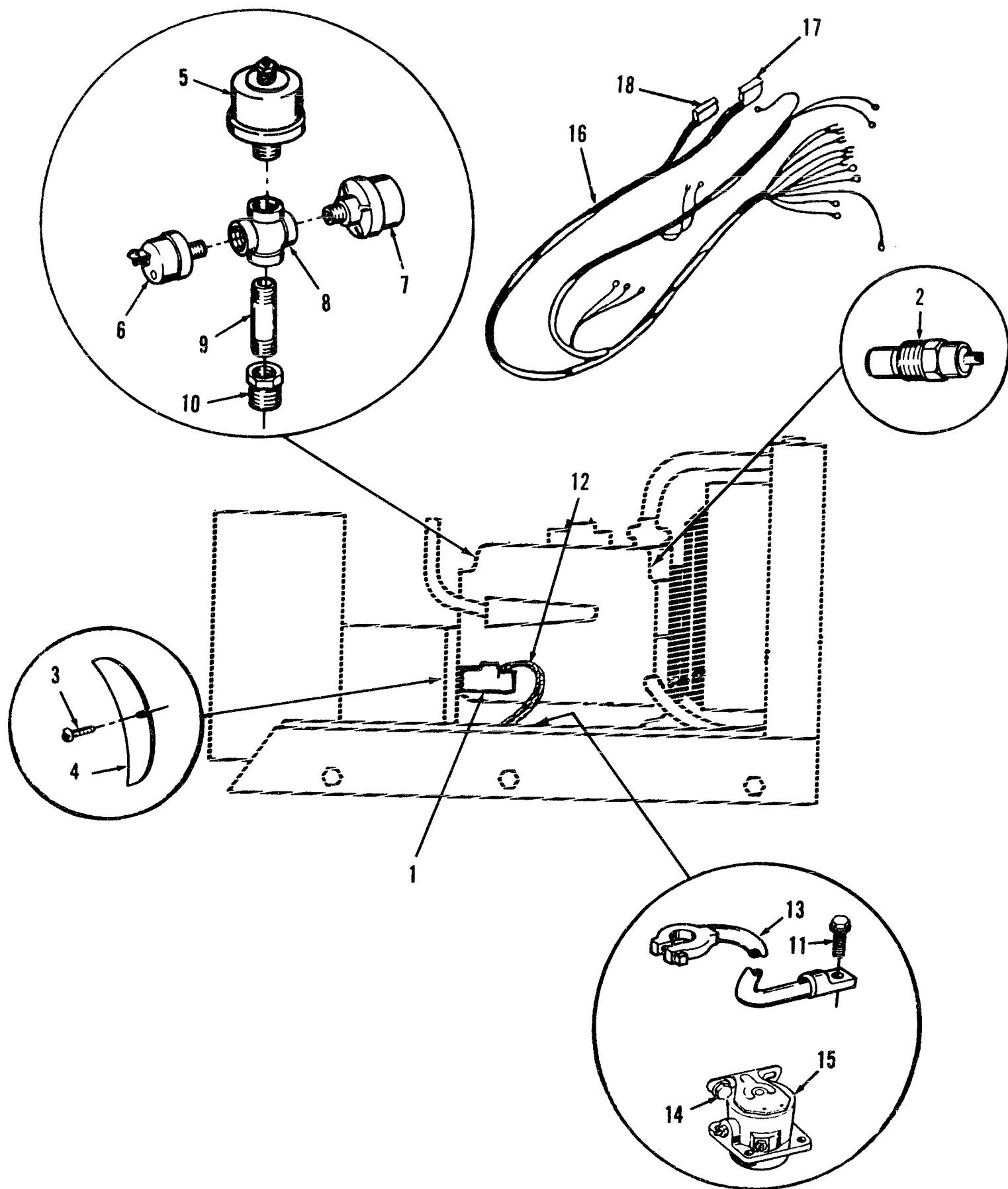
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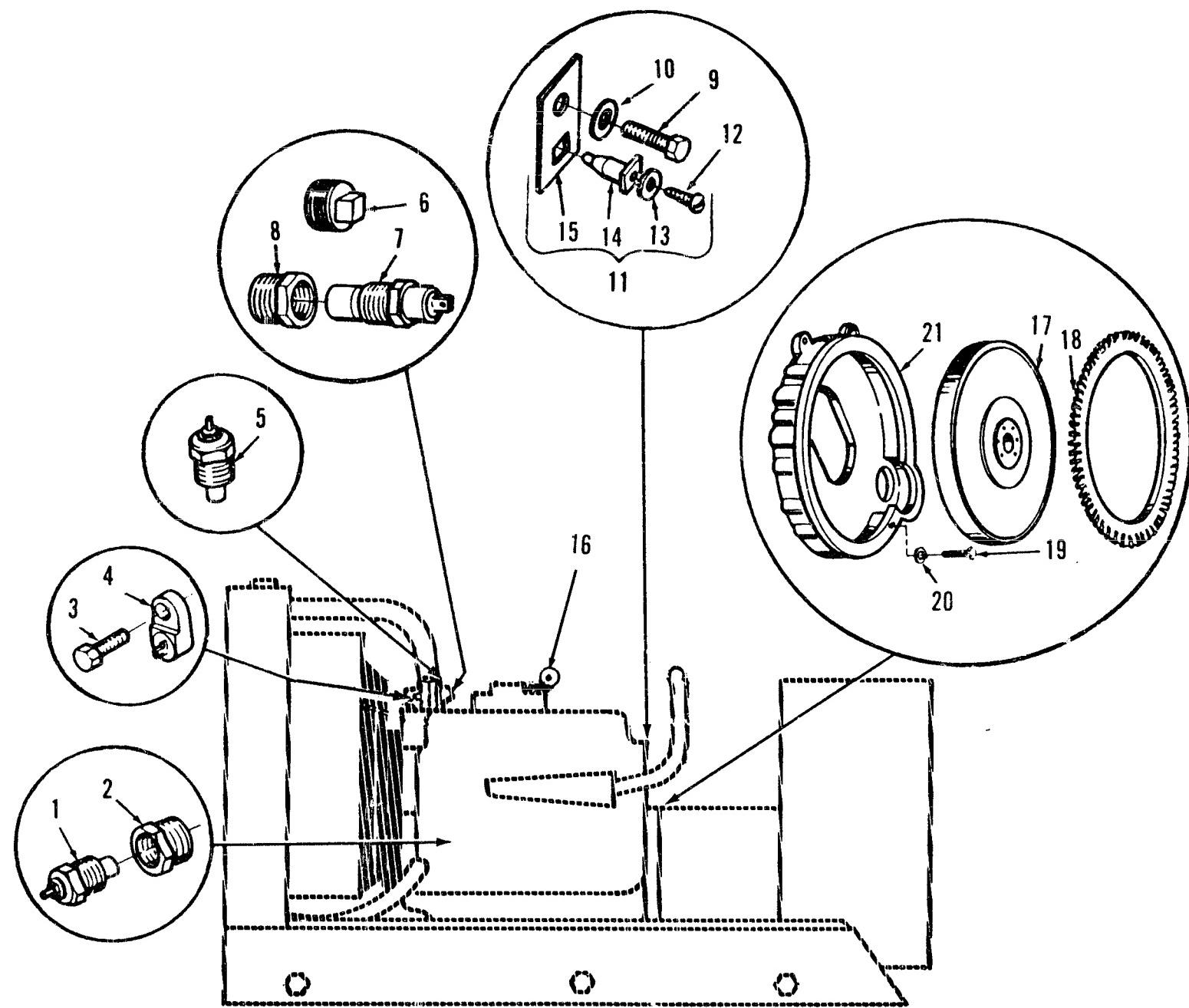
Engine Components - Left Side



Engine Components - Left Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Starter 12 VD / "and Part No. D2TF-1101-A4)	12	226-3413	1	Lead, Electrical (18-1/2" LG)
2	193-0247	1	Sender, Temperature - Engine Coolant	13	416-0019	1	Cable, Battery Positive (18-1/2" LG)
3	812-0075	1	Screw, Machine - Round Head (#8-32 x 1/4")		416-0530	1	Negative (17" LG)
4	191-0773	1	Shield - Starter Mounting	14	821-0018	2	Screw, Cap - Lock Head (1/4-20 x 5/8")
5	193-0244	1	Sender, Pressure - Oil (E1)	15	307-1166	1	Solenoid, Electrical - Start, 12 VDC (K6)
6	309-0544	1	Switch, Pressure - Low Oil (S1)	16			Harness, Wiring - Engine (Includes Connectors)
7	309-0545	1	Switch, Pressure - Low Oil, Pre-Alarm (6)	338-2053		1	Use with Motorola Alternator
8	505-0763	1	Cross, Pipe (1/8 NPT)	338-2630		1	Use with Bosch Alternator
9	505-0104	1	Nipple, Pipe (1/8 NPT x 2")	17	323-1304	1	Housing, Connector - 6 Place Contact, Pin
10	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)		323-1200	6	Housing, Connector - 8 Place Contact, Pin
11	800-0071	1	Screw, Cap - Hex Head (7/16-14 x 1")	18	323-1306	1	
					323-1200	8	

Engine Components - Right Side

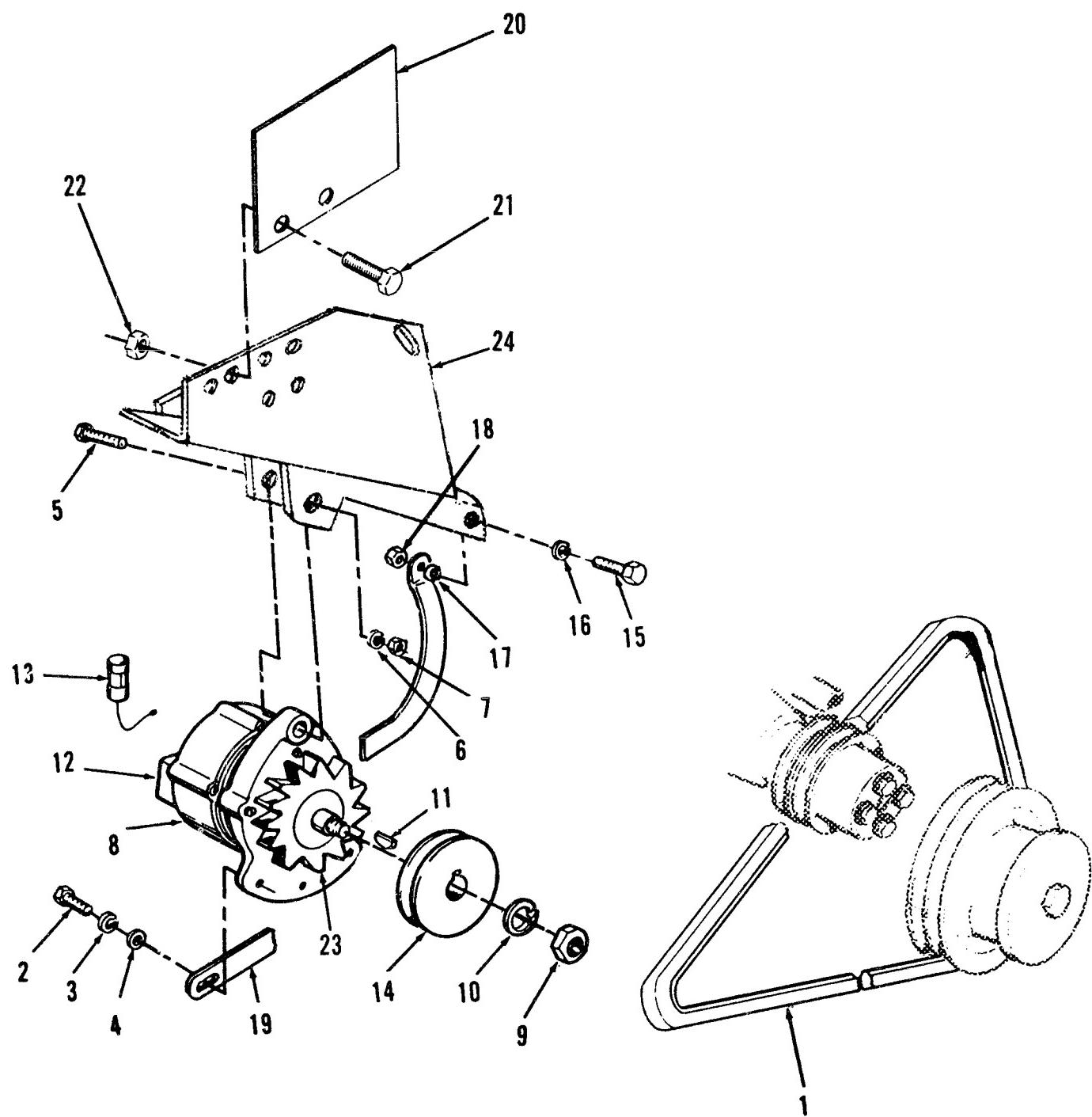


Engine Components - Right Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	193-0249	1	Sender, Temperature - Oil (E5)	10	853-0016	1	Washer, Lock - EIT (5/16")
2	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)	11	332-1292	1	Terminal Board (Includes Parts Marked *)
3	821-0029	1	Screw, Lock Head (3/8-16 x 3/4")	12	809-0036	1	*Screw, Thread Cutting - Round Head (#8 x 7/8")
4	309-0269	1	Switch, Thermostatic - Low Engine Temperature (S5)	13	508-0015	1	*Washer, Insulating - Fiber (#8)
5	309-0179	1	Switch, Thermostatic - High Engine Coolant Temperature (S2)	14	870-0196	1	*Nut, Insulating (#8)
6	505-0130	1	Plug, Pipe - Square Head 3/4 NPT	15	332-1281	1	*Plate, Mounting - Terminal
7	309-0178	1	Switch, Thermostatic - Hi Engine Coolant Temperature (S7)	16	166-0278	1	Coil, Ignition (T1)
8	505-0499	1	Bushing, Reducer - Hex (3/4 NPT x 3/8 NPT)	17	104-1097	1	Flywheel (Includes Ring Gear)
9	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")	18	104-0723	1	Gear, Ring
				19	800-0072	8	Screw, Cap - Hex Head (7/16-14 x 1-1/4")
				20	850-0055	8	Washer, Lock - Spring (7/16")
				21	231-0205	1	Adapter - Generator to Engine Standard
					231-0260	1	With Mag Pickup Tapped Hole

* - Parts included in Terminal Board.

Alternator



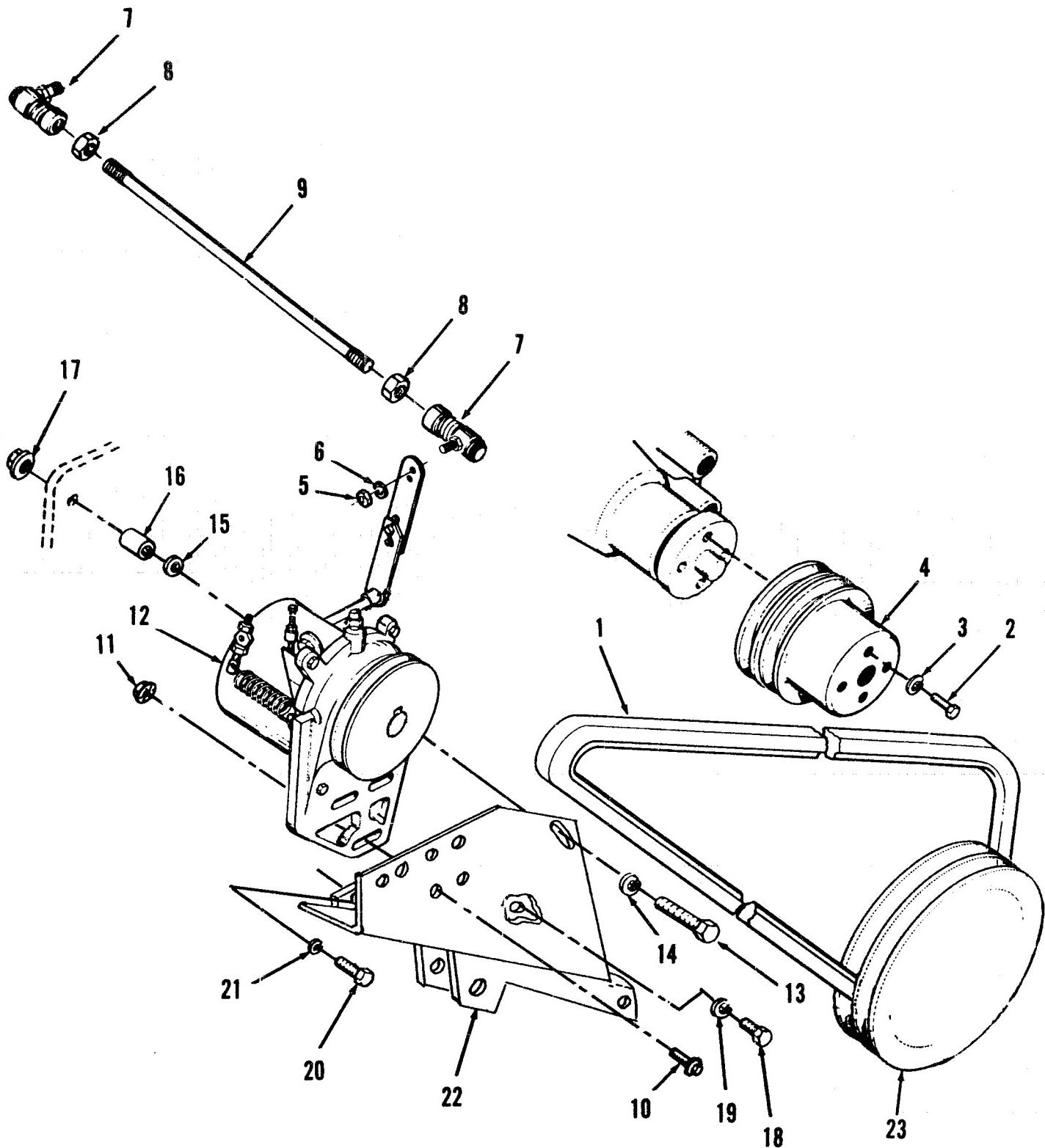
Alternator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	511-0131	1	Belt, Drive	9	868-0007	1	*Nut, Hex (5/16-18)
2	800-0027	1	Screw, Cap - Hex Head Used with Motorola Alternator (5/16-18 x 7/8")	10	850-0070	1	*Washer, Lock - Spring (5/8")
			Used with Bosch Alternator (M8 x 1-1/4 x 25)	11	515-0093	1	*Key, Woodruff (#5)
	800-2058	1		12	191-1390	1	*Regulator, Voltage (Spec E) (Includes Parts Marked #)
3	850-0045	1	Washer, Lock - Spring Used with Motorola Alternator (5/16")	13	312-0201	1	*#Capacitor (Spec E) Pulley
	850-2008	1	Used with Bosch Alternator (M8)	14	191-1099	1	Spec E
4	526-0115	1	Washer, Flat Used with Motorola Alternator (11/32" ID x 11/16" OD x 1/16" Thk)	17	191-0864	1	Begin Spec F
	526-2106	1	Used with Bosch Alternator (M8)	18	862-0015	1	Screw, Cap - Hex Head (5/16-18 x 1-1/8")
5	800-0095	1	Screw, Cap - Hex Head Used with Motorola Alternator (1/2-13 x 2-1/2")	19	191-1203	1	Washer, Lock - Spring (5/16")
	800-2097	1	Used with Bosch Alternator (M10 x 1-1/2 x 80)	20	130-3315	1	Spacer
6	850-0060	1	Washer, Lock - Spring (1/2")	21	102-0455	2	Nut, Hex (5/16-18)
7	862-0005	1	Nut, Hex Used with Motorola Alternator (1/2-13)	22	870-0281	1	Arm, Adjusting
	870-2056	1	Used with Bosch Alternator (Self-Locking M10 x 1-1/2")	23	191-1981	1	Guard, Belt
8	191-1388	1	Alternator Motorola, 12 VDC - Spec E (Includes Parts Marked *)	24	191-1831	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
	191-1983-01	1	Bosch, Spec F (Does Not Include Pulley or Fan)		191-2026	1	Nut, Self-Locking (3/8-16)
					191-2025	1	Fan
							Bracket, Mounting
							Used with Motorola Alternator
							Used with Bosch Alternator
							and Electric Governor
							Used with Bosch Alternator
							and Mechanical Governor

* - Parts Included with Alternator

- Parts Included with Voltage Regulator

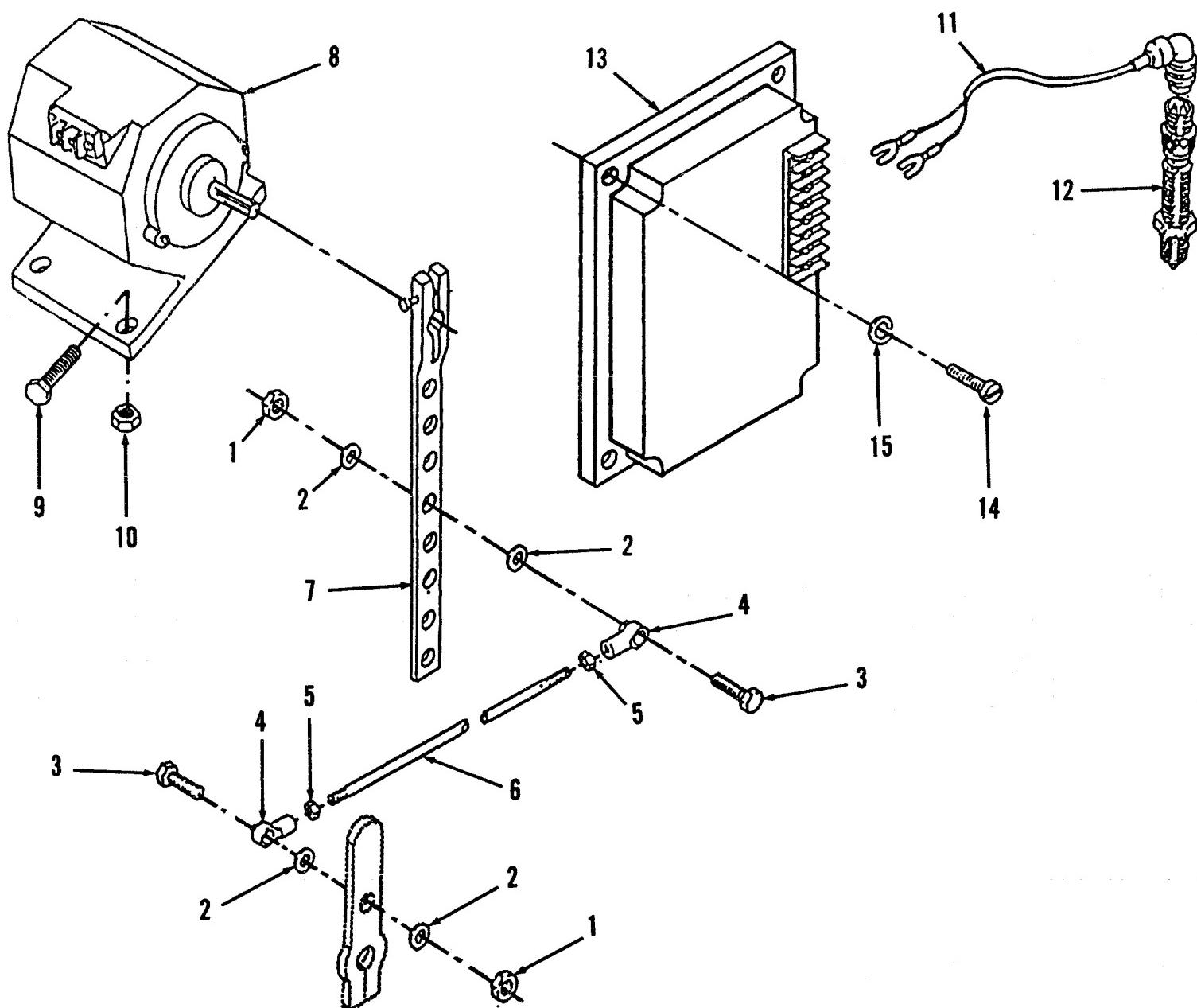
Governor - Mechanical



Governor - Mechanical

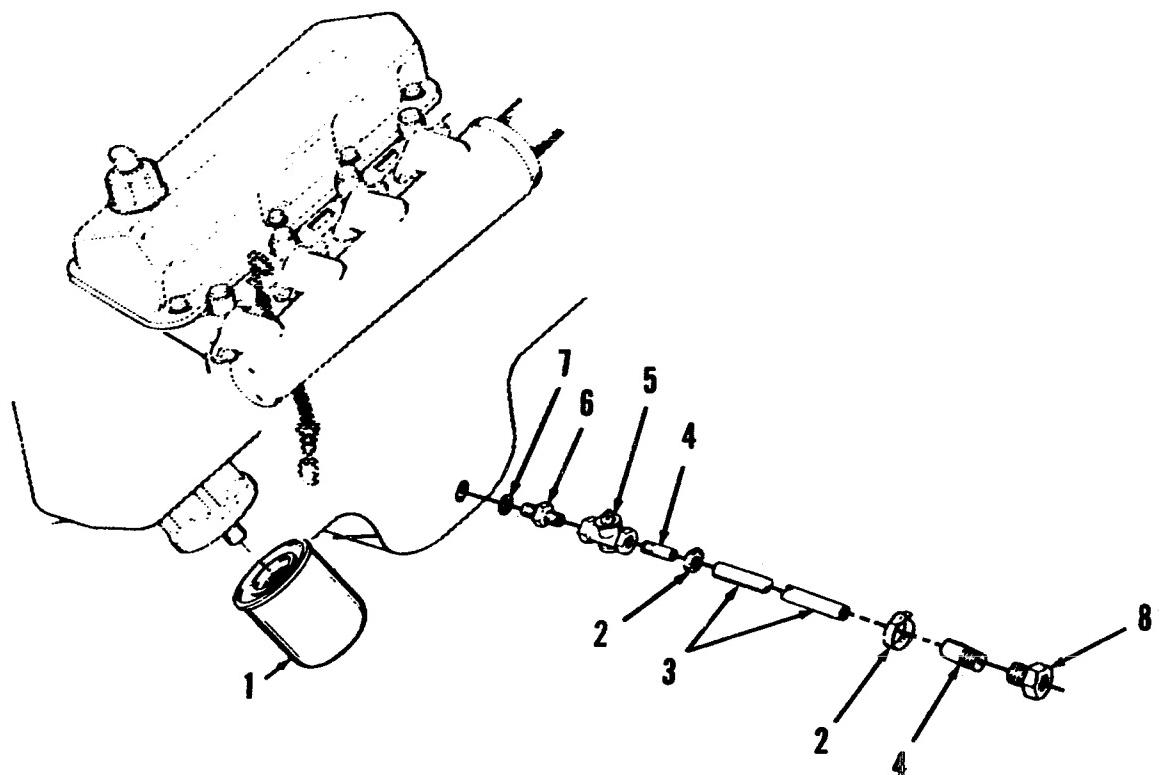
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	511-0084	1	Belt, Drive	14	850-0050	1	Washer, Lock - Spring (3/8")
2	801-0027	4	Screw, Cap - Hex Head (5/16-24 x 7/8")	15	526-0026	2	Washer, Flat (13/32" ID x 3/4" OD x 1/16" THK)
3	850-0045	4	Washer, Lock - Spring (5/16")	16	130-0988	1	Spacer, Sleeve
4	132-0261	1	Pulley, Drive - Water Pump	17	870-0281	1	Nut, Self-Locking - Hex Washer Head (3/8-16)
5	115-0025	2	Nut, Hex (1/4-28)	18	800-0048	1	Screw, Cap - Hex Head (3/8-16 x 3/4")
6	850-0040	2	Washer, Lock - Spring (1/4")	19	850-0050	1	Washer, Lock - Spring (3/8")
7	150-0638	2	Joint, Ball	20	800-0069	1	Screw, Cap - Hex Head (7/16-14 x 3/4")
8	115-0025	2	Nut, Hex (1/4-28)	21	850-0055	1	Washer, Lock - Spring (7/16")
9	152-0243	1	Rod, Linkage - Throttle	22	191-1831	1	Bracket, Mounting Used with Motorola Alternator
10	821-0030	3	Screw, Self-Locking - Hex Washer Head (3/8-16 x 1")		191-2025	1	Used with Bosch Alternator
11	870-0281	3	Nut, Self-Locking - Hex Washer Head (3/8-16)		104-1673	1	Pulley, Crankshaft - Dual Belt (6" OD)
12	151-0627	1	Governor				
13	800-0052	1	Screw, Cap - Hex Head (3/8-16 x 1-1/2")				

Governor - Electric



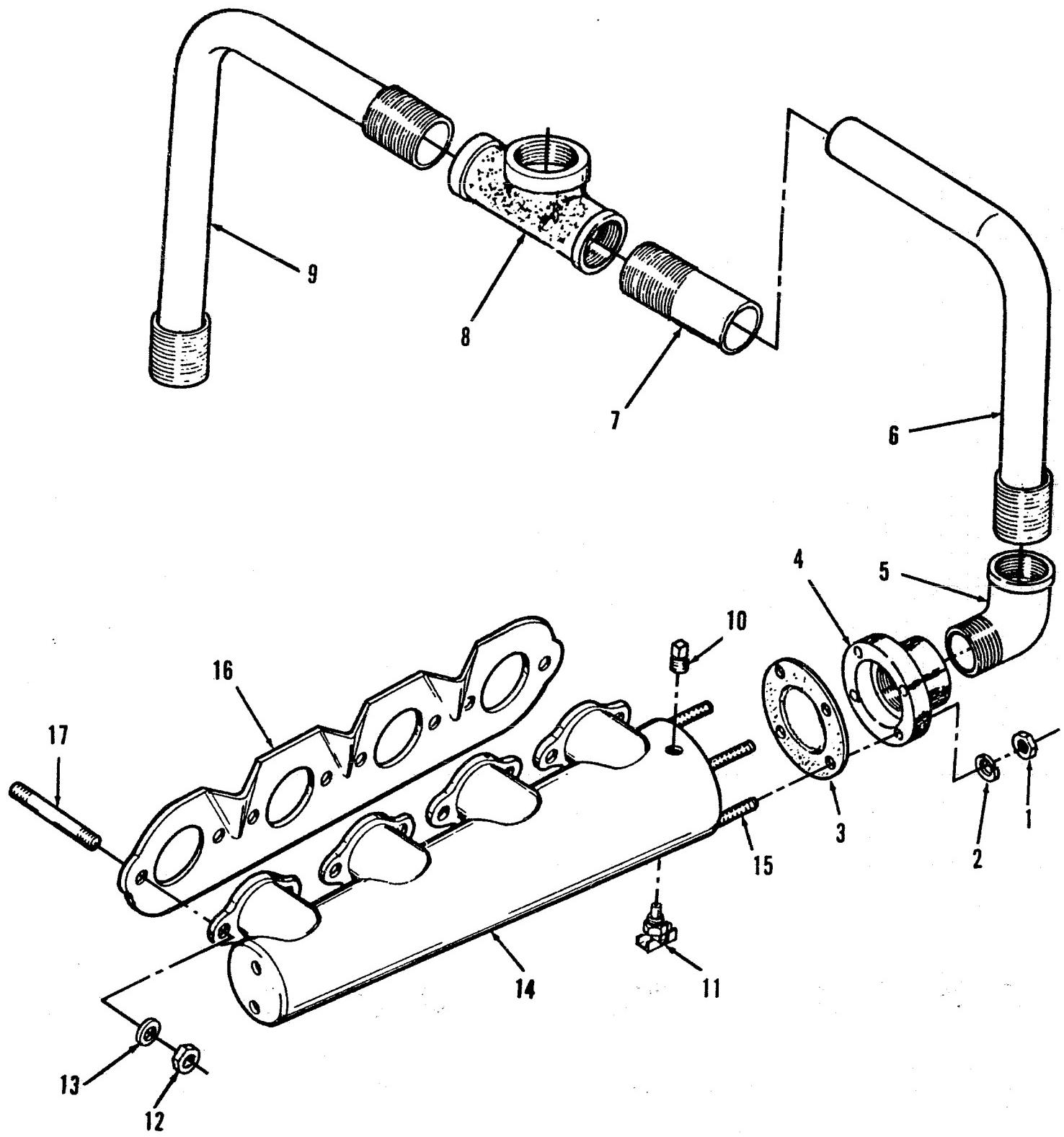
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0131	2	Nut, Hex - W/ET Lockwasher (#10-32)	9	800-0008	4	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
2	526-0008	4	Washer, Flat (#10)	10	870-0212	4	Nut, Self-Locking - Hex (1/4-20)
3	813-0103	2	Screw, Self-Locking - Hex (#10-32 x 1")	11	151-0629	1	Cable, Magnetic Pickup
4	150-2251	2	Joint, Ball	12	151-0433	1	Sensor, Speed - Magnetic
5	870-0131	2	Nut, Hex	13	151-0605	1	Controller, Governor
6	150-2218-04	1	Rod, Control	14	813-0098	4	Screw, Machine - Round Head (#10-32 x 1")
7	151-0567	1	Arm, Governor	15	850-0030	4	Washer, Lock - Spring (#10)
8	151-0566	1	Actuator, Governor				

Oil System Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	122-0193	1	Filter, Oil	6	502-1013	1	Adapter, Pipe - Hex (M14 x 3/8 NPT)
2	503-0131	2	Clamp, Hose	7	102-1320	1	Gasket
3	503-0966	1	Hose, Rubber (5/8" ID)	8	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)
4	505-0135	2	Nipple, Pipe - Half (3/8" NPT x 1-1/2")				
5	504-0030	1	Valve, Cock (3/8 NPT)				

Exhaust System Components

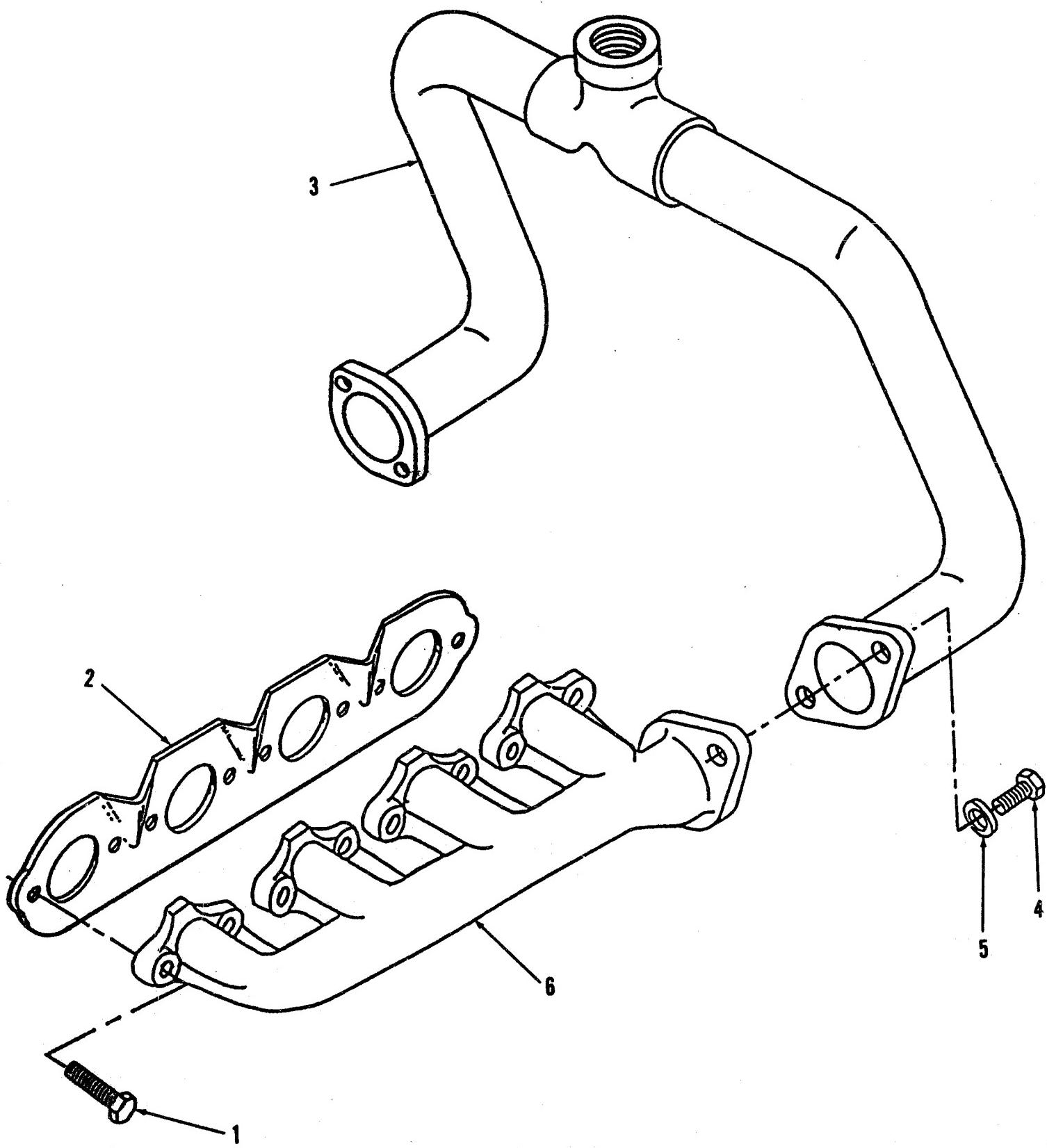


Exhaust System Components

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0195	8	Nut, Self-Locking - Hex (5/16-24)	10	505-0057	2	Plug, Pipe - Square Head (1/8 NPT)
2	850-0165	8	Washer, Lock - Spring - SST (5/16")	11	504-0005	2	Cock, Drain (1/8 NPT)
3	154-2336	2	Gasket	12	870-0130	16	Nut, Hex (3/8-24)
4	154-1739	2	Flange, Pipe	13	526-0188	16	Washer, Flat - SST (3/8" Nominal)
5	505-0216	2	Elbow, Pipe - Street, 90° (2-1/2 NPT)	14	154-1766	2	Manifold, Exhaust - Liquid Cooled (Includes Parts Marked *)
6	155-1373	1	Tube, Exhaust	15	520-0165	8	*Stud (5/16-24 x 5/16-18 x 1-7/8" LG)
7	155-0615	1	Nipple, Pipe - Half	16	155-1395	2	Gasket
8	505-0373	1	Tee, Pipe - Reducing (2-1/2 NPT x 2-1/2 NPT x 3 NPT)	17	520-0819	16	Stud (3/8-24 x 3/8-16 x 1-7/8" LG)
9	155-1372	1	Tube, Exhaust				

* - Parts included with Exhaust Manifold.

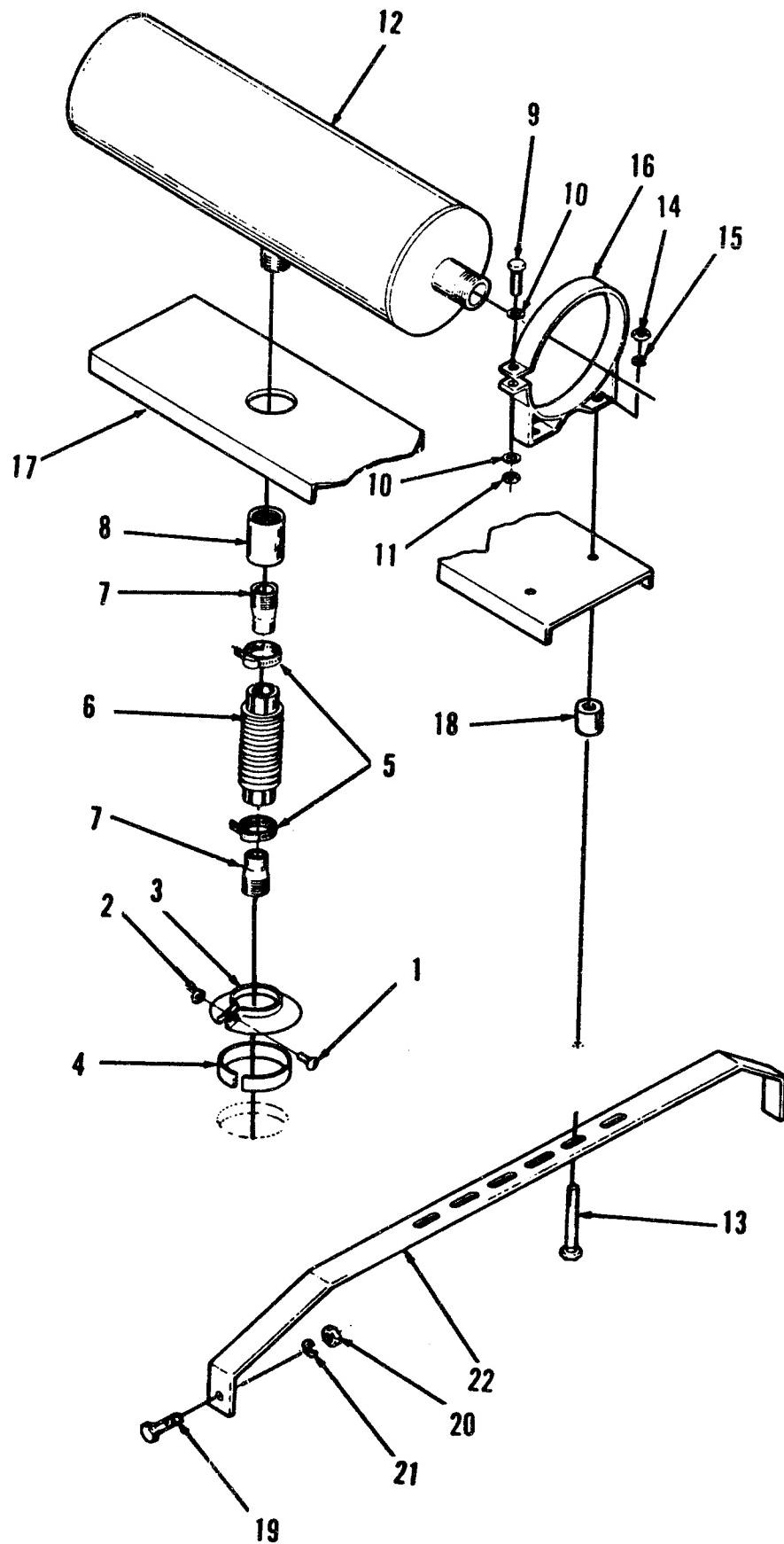
**Exhaust System
(Dry Manifold)**



**Exhaust System
(Dry Manifold)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0574	16	Screw, Self-Locking - Hex Head (3/8-16 x 1-3/8")	5	526-0032	4	Washer, Flat (7/16)
2	155-1395	2	Gasket	6	154-2500	1	Manifold, Exhaust Left Side
3	155-2214	1	Tube, Exhaust		154-2499	1	Right Side
4	800-0598	4	Screw, Cap - Hex Head GR.8 (7/16-14 x 1-1/2")				

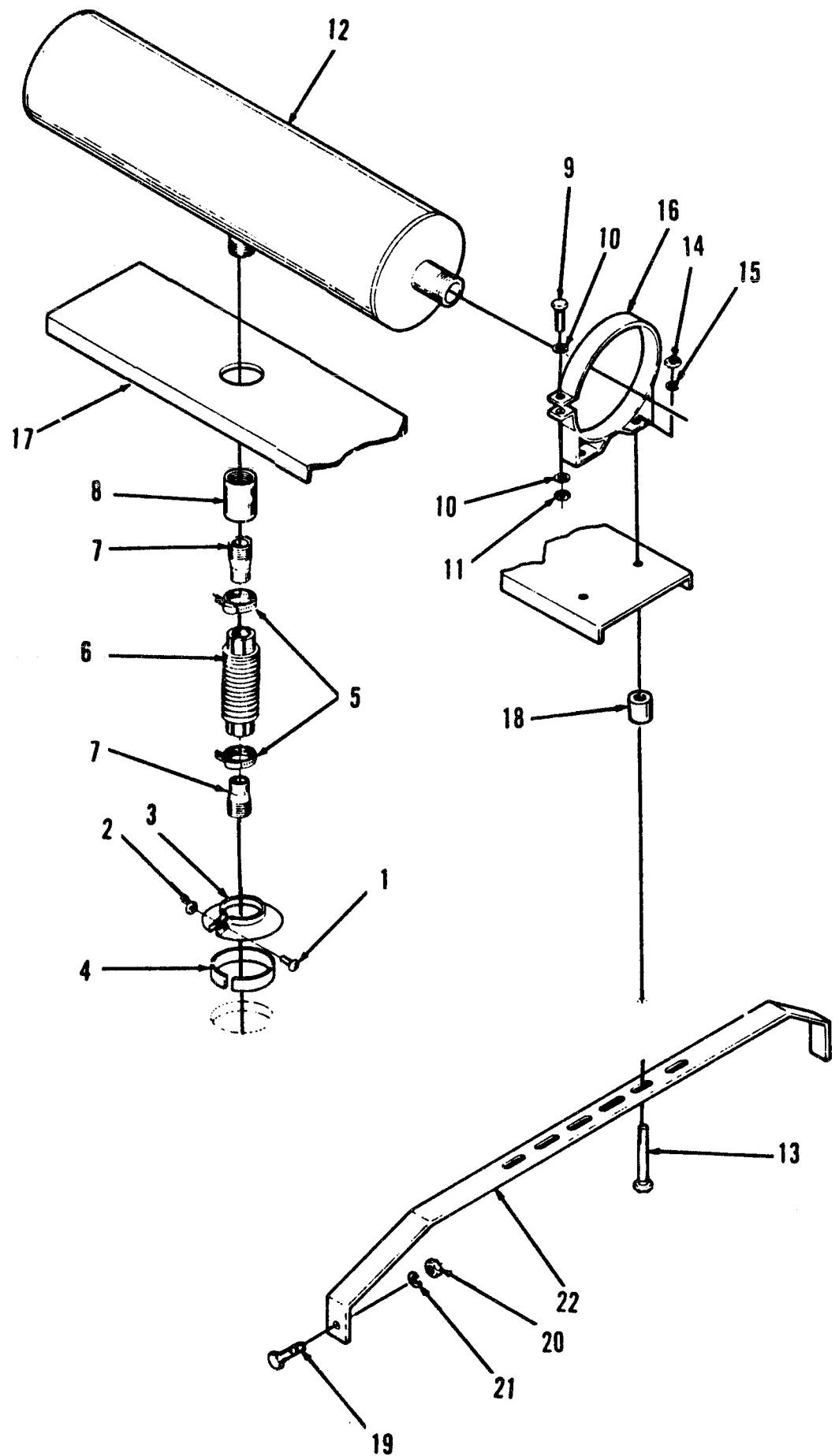
Exhaust System - Industrial



Exhaust System - Industrial

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0105	2	Screw, Machine - Round Head (#10-32 x 1")	12	155-0989	1	Muffler, Exhaust - Industrial (14"OD x 50" LG)
2	870-0188	2	Nut, Self-Locking - Hex (#10-32)	13	800-0037	4	Screw, Cap - Hex Head (5/16-18 x 3")
3	155-1422	1	Shield, Rain	14	870-0048	4	Nut, Self-Locking - Hex Washer Head (5/16-18)
4	895-0159	1	Strip, Asbestos (2"W x 1/16" THK x 12"LG)	15	850-0045	4	Washer, Lock - Spring (5/16")
5	503-0591	2	Clamp, Hose	16	140-0757	2	Band, Mounting (14"ID)
6	155-1489	1	Tube, Exhaust - Flexible, SST (3" x 9")	17	155-0997	1	Shield, Heat (12"W x 46"LG)
7	155-1463	2	Connector, Tube - Exhaust (3 NPT)	18	155-1430	4	Spacer (1/2"ID x 1-1/2"OD x 2" THK)
8	505-0327	1	Coupling, Pipe (3 NPT)	19	800-0026	4	Screw, Cap - Hex Head (5/16-18 x 3/4")
9	800-0035	2	Screw, Cap - Hex Head (5/16-18 x 2-1/2")	20	870-0048	4	Nut, Self-Locking - Hex Washer Head (5/16-18)
10	526-0113	4	Washer, Flat (11/32"ID x 1"OD x 3/32" THK)	21	850-0045	4	Washer, Lock - Spring (5/16")
11	870-0257	2	Nut, Self-Locking - Hex Washer Head (6/16-18)	22	155-0789	2	Bracket, Support - Muffler Mounting

Exhaust System - Critical

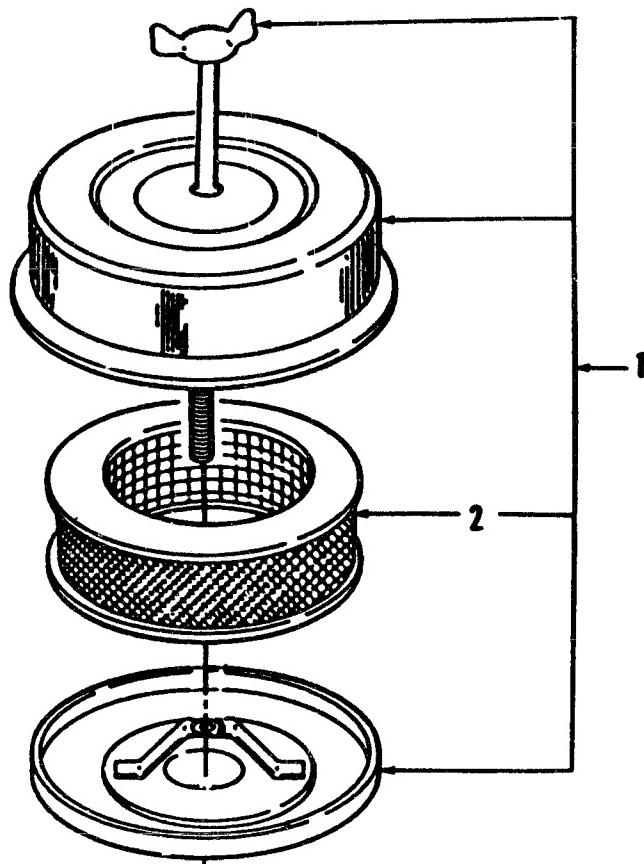


Exhaust System - Critical

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0105	2	Screw, Machine - Round Head (#10-32 x 1")	12	155-1618	1	Muffler, Exhaust - Critical (14"OD x 62"LG)
2	870-0188	2	Nut, Self-Locking - Hex (#10-32)	13	800-0037	6	Screw, Cap - Hex Head (5/16-18 x 3")
3	155-1422	1	Shield, Rain	14	870-0048	6	Nut, Self-Locking - Hex Washer Head (5/16-18)
4	895-0159	1	Strip, Asbestos (2"W x 1/16"THK x 12"LG)	15	850-0045	6	Washer, Lock - Spring (5/16")
5	503-0354	2	Clamp, Hose	16	140-0757	3	Band, Mounting (14"ID)
6	155-1489	1	Tube, Exhaust - Flexible, SST (3" x 9")	17	155-1663	1	Shield, Heat (12"W x 58"LG)
7	155-1463	2	Connector, Tube - Exhaust (3 NPT)	18	155-1430	6	Spacer (1/2"ID x 1-1/2"OD x 2"THK)
8	505-0327	1	Coupling, Pipe (3 NPT)	19	800-0026	6	Screw, Cap - Hex Head (5/16-18 x 3/4")
9	800-0035	2	Screw, Cap - Hex Head (5/16-18 x 2-1/2")	20	870-0048	6	Nut, Self-Locking - Hex Washer Head (5/16-18)
10	526-0113	4	Washer, Flat (11/32"ID x 1"OD x 3/32"THK)	21	850-0045	6	Washer, Lock - Spring (5/16")
11	870-0257	2	Nut, Self-Locking - Hex Washer Head (6/16-18)	22	155-0789	3	Bracket, Support - Muffler Mounting

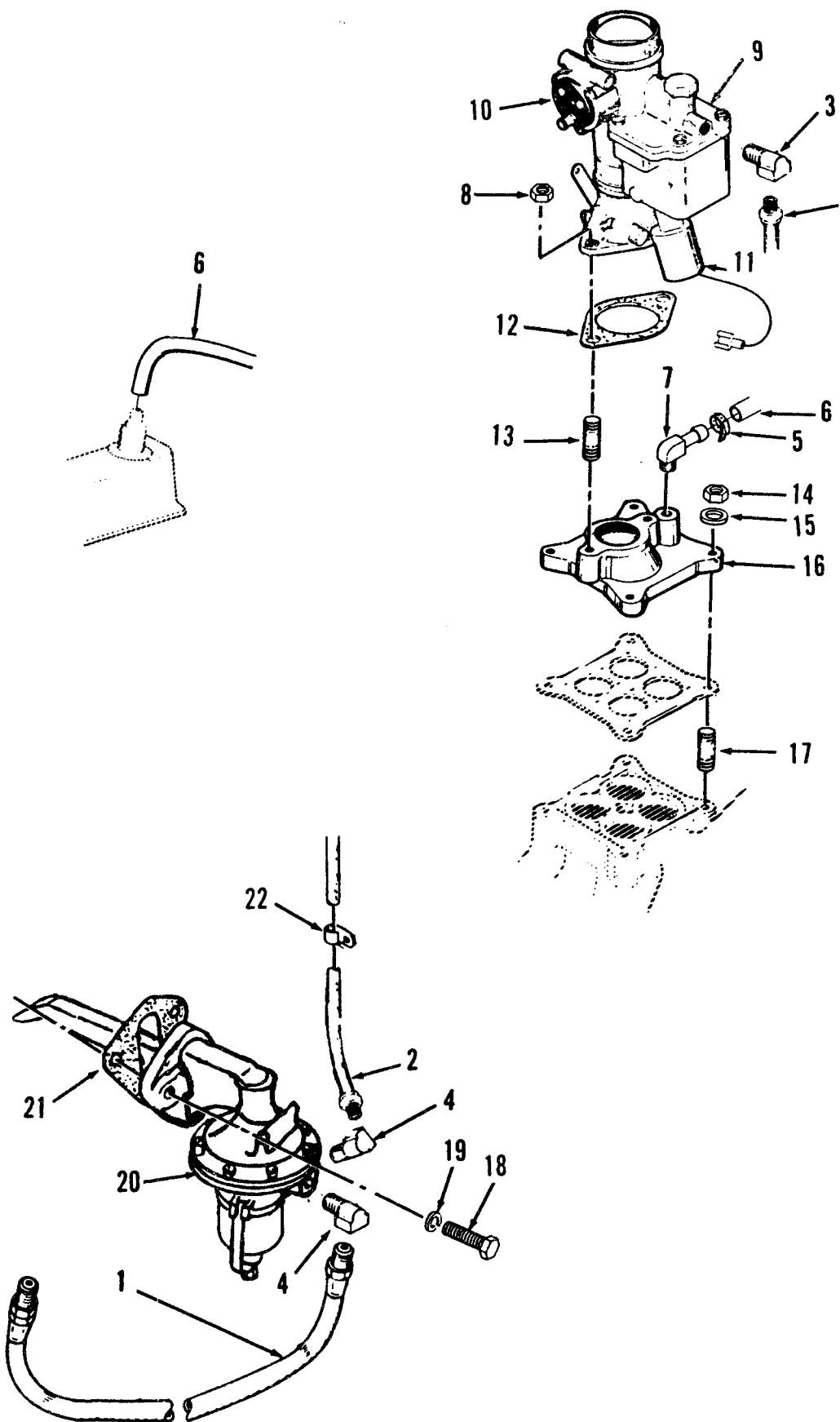


Air Cleaner



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-1083	1	Cleaner, Air (Includes Element)	2	140-1089	1	Element, Cleaner - Air

Fuel System - Gasoline

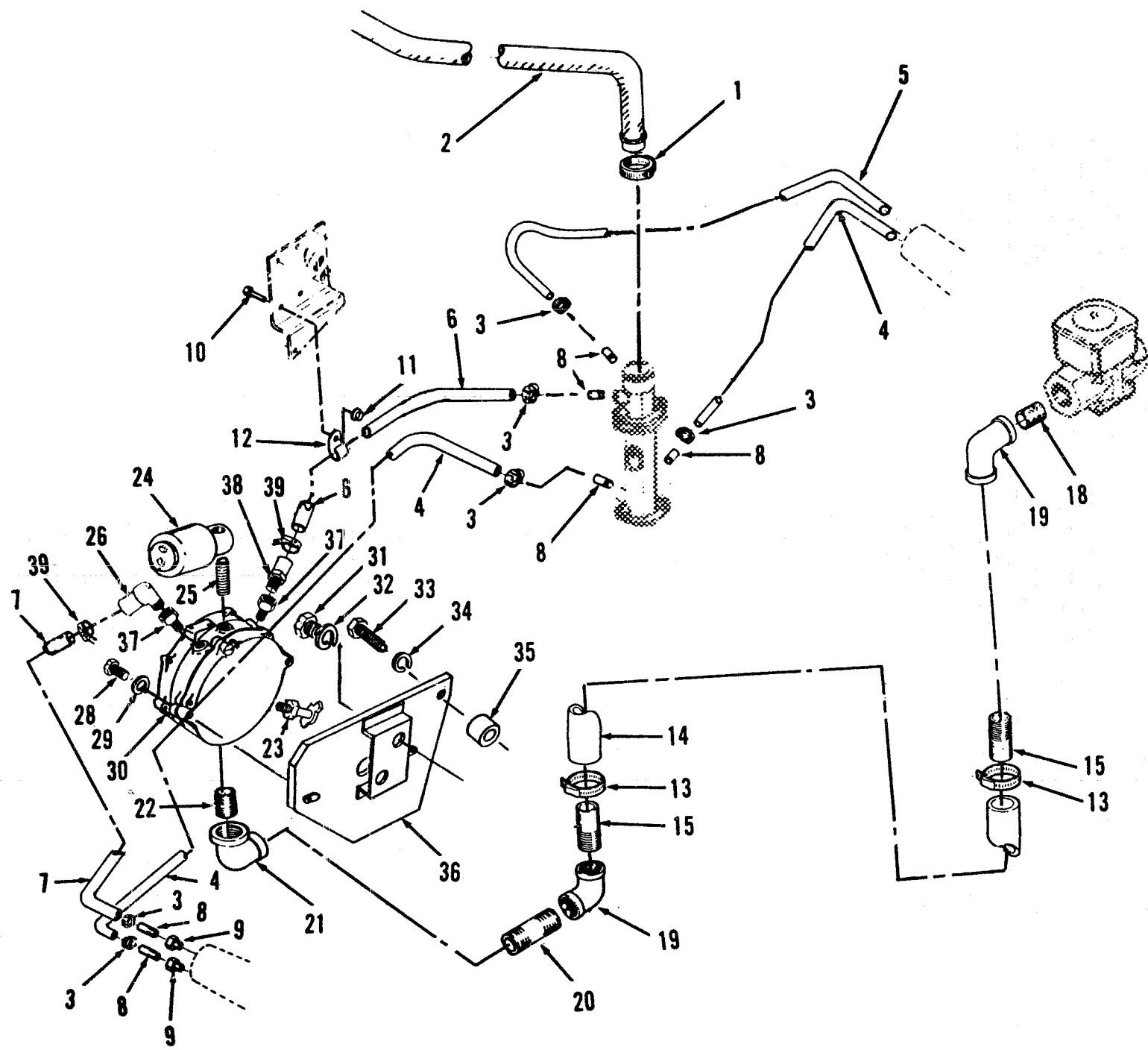


Fuel System - Gasoline

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	12	141-0852	1	*Gasket
2	501-0066	1	Line, Fuel - Flexible	13	520-0311	2	Stud (3/8-16 x 1-5/8"LG)
3	502-0002	1	Elbow, Line - 90° (1/8 NPT x 1/4 Line)	14	110-0445	4	Nut, Hex (5/16-24)
4	502-0041	2	Elbow, Line - 90° (1/4 NPT x 1/4 Line)	15	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)
5	503-0547	1	Clamp, Hose	16	145-0482	1	Adapter, Carburetor
6	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	17	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)
7	502-0237	1	Adapter, Pipe to Hose - 90°	18	114-0022	2	Screw, Cap - Hex Head (5/16-18 x 1-3/4")
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	19	850-0045	2	Washer, Lock - Spring (5/16")
9	141-0902	1	Carburetor, Gasoline (Includes Parts Marked *)	20	149-1437	1	Pump, Fuel
10	141-0911	1	*Cover, Choke with Heater - 12 VDC	21	149-1436	1	Gasket
11	141-0850	1	*Solenoid, Fuel Cutoff - 12 VDC	22	332-1554	1	Clamp, Loop

* - Parts included with Carburetor.

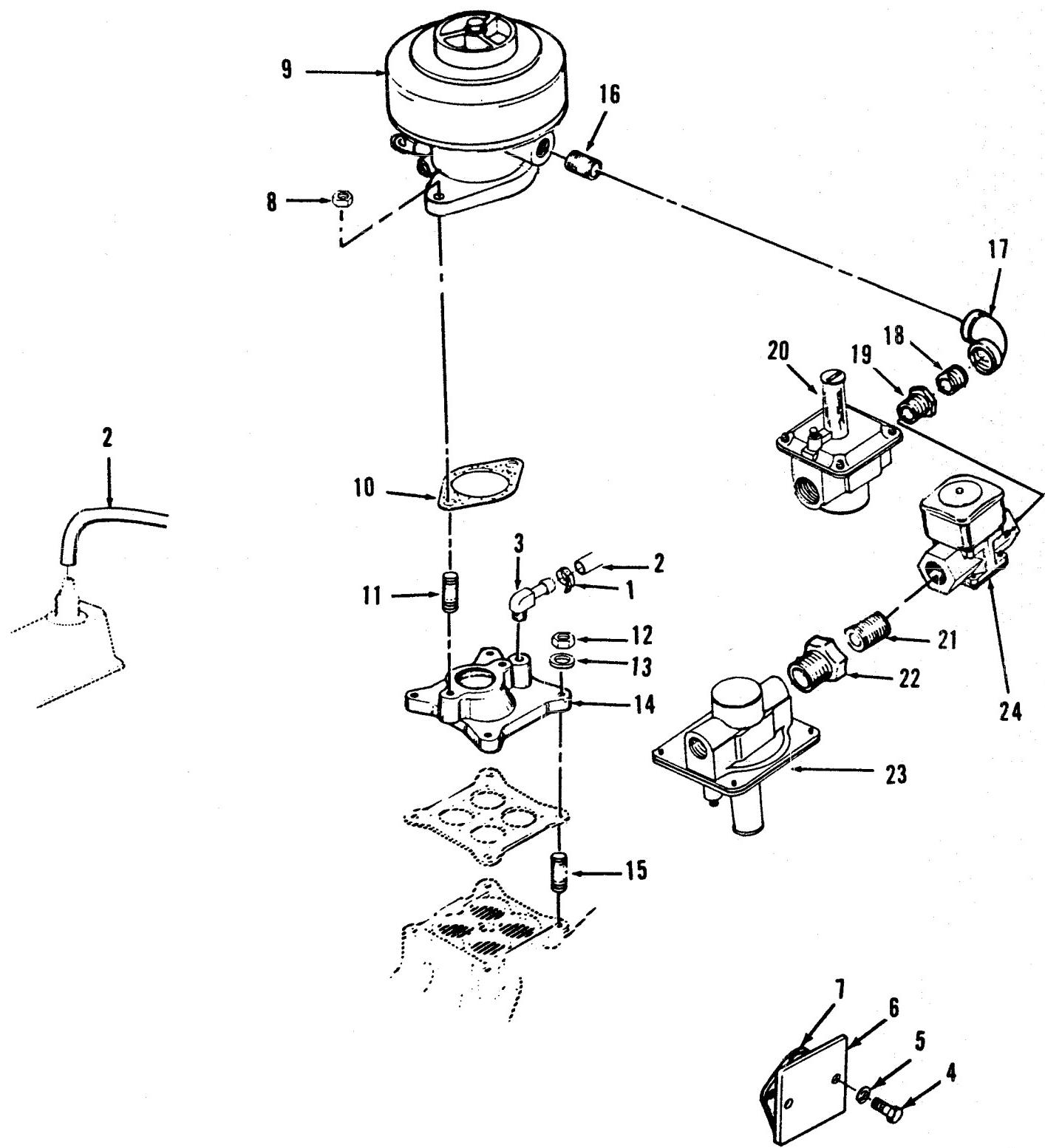
Gas Conversion System (LPG Liquid to Vapor)



**Gas Conversion System
(LPG Liquid to Vapor)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0274	1	Clamp, Hose	21	505-0356	1	Elbow, Pipe - Reducing (1 NPT x 3/4 NPT)
2	503-0753	1	Hose, Radiator - Upper	22	505-0004	1	Nipple, Pipe (1 NPT x 1-1/2")
3	503-0183	6	Clamp, Hose	23	504-0005	1	Cock, Drain (1/8 NPT)
4	503-0386	2	Hose, Rubber (5/8"ID x 23"LG)	24	307-0268	1	Valve, Solenoid - 12 VDC (1/4 NPT)
5	503-0386	1	Hose, Rubber (5/8"ID x 28"LG)	25	505-0099	1	Nipple, Pipe (1/4 NPT x 7/8")
6	503-1467-06	1	Hose, Rubber (3/4"ID x 19"LG)	26	502-1030	1	Connector, Hose - 90° x 1/2 NPT)
7	503-1467-07	1	Hose, Rubber (3/4"ID x 8-1/2"LG)	28	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
8	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	29	850-0040	2	Washer, Lock - Spring (1/4")
9	505-0019	4	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	30	148-0625	1	Converter, Gas - LPG
10	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")	31	800-0069	2	Screw, Cap - Hex Head (7/8-14 x 3/4")
11	870-0133	1	Nut, Self-Locking - Hex Washer Head (3/8-16)	32	850-0055	2	Washer, Lock - Spring (7/8")
12	148-0274	2	Clamp, Loop	33	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
13	503-0398	2	Clamp, Hose	34	850-0050	1	Washer, Lock - Spring (3/8")
14	503-0799	1	Hose, Rubber (1"ID x 1-3/8"OD x 30"LG)	35	191-0864	2	Spacer, Mounting - Starter
15	505-0324	2	Nipple, Pipe - Half (3/4 NPT x 2")	36	148-0773	1	Bracket, Mounting - Converter
18	505-0102	1	Nipple, Pipe (3/4 NPT x 1-3/8")	37	502-0270	2	Adapter, Pipe (3/8 NPT x 1/2 NPT)
19	505-0132	2	Elbow, Pipe - 90° (3/4 NPT)	38	502-1031	1	Connector, Hose (1/2 NPT)
20	505-0084	2	Nipple, Pipe (3/4 NPT x 2-1/2")	39	503-0382	4	Clamp, Hose (1/2 NPT)

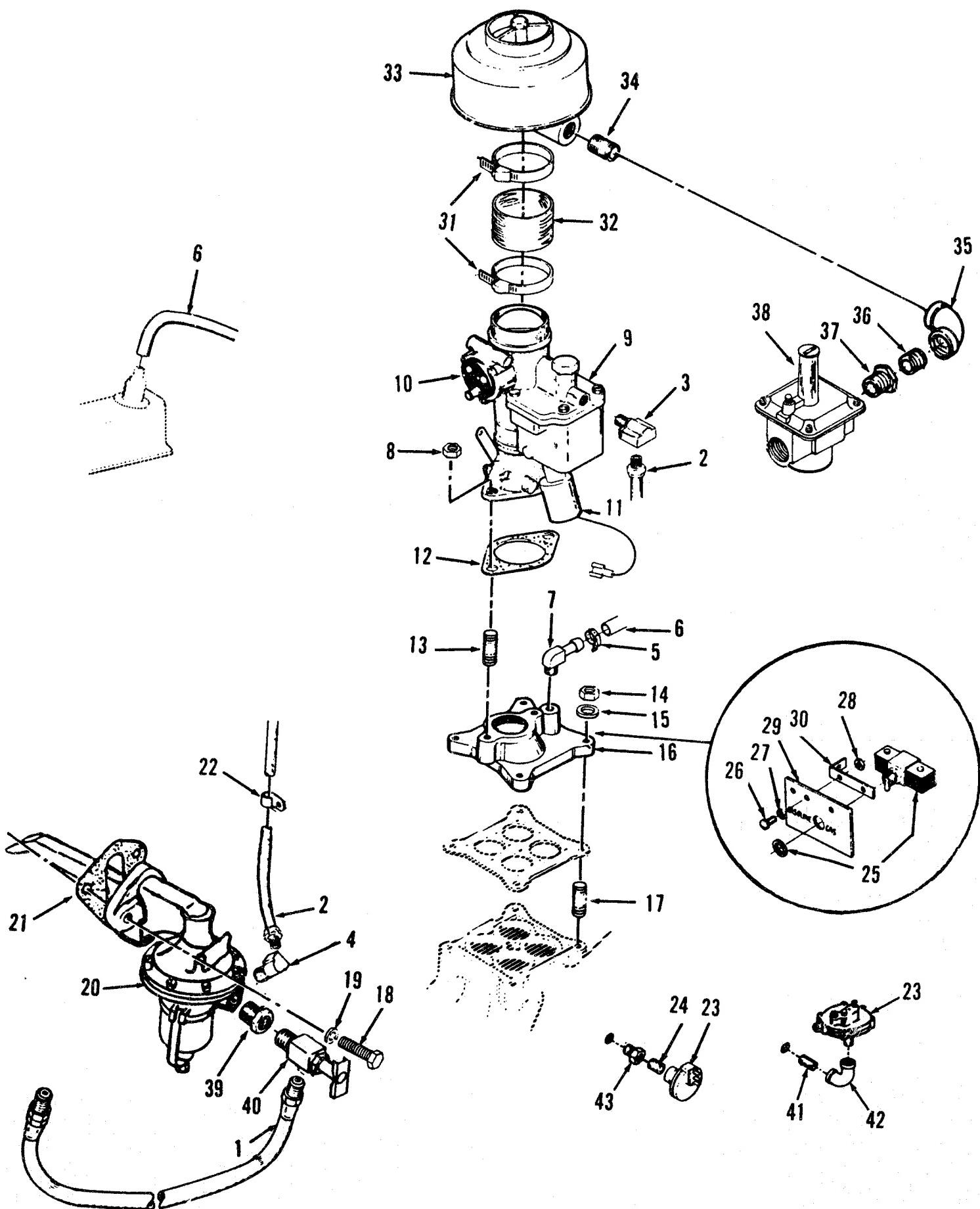
Gaseous Fuel Systems



Gaseous Fuel Systems

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0547	1	Clamp, Hose	16	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2"LG)
2	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	17	505-0040	1	Elbow, Pipe - 90° (1/2 NPT)
3	502-0237	1	Adapter, Pipe to Hose - 90°	18	505-0106	1	Nipple, Pipe (1/2 NPT x 1/2"LG)
4	800-0025	2	Screw, Cap - Hex Head (5/16-18 x 5/8")	19	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
5	850-0045	2	Washer, Lock - Spring (5/16")	20	148-0601	1	Regulator, Pressure - Gas (3/4 NPT) Nat Gas System
6	149-0638	1	Plate, Cover - Fuel Pump Mounting Hole	21	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8") LPG System
7	149-1436	1	Gasket	22	505-0129	1	Bushing, Reducer - Hex (1 NPT x 3/4 NPT) LPT System
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	23	148-0636	1	Regulator, Pressure - Gas (1 NPT) LPG System
9	148-0763	1	Carburetor, Gas Vapor	24	307-0834	1	Valve, Solenoid - 3/4 NPT (12 VDC) LPG System
10	141-0852	1	Gasket				
11	520-0311	2	Stud (3/8-16 x 1-5/8"LG)				
12	110-0445	4	Nut, Hex (5/16-24)				
13	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)				
14	145-0482	1	Adapter, Carburetor				
15	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)				

**Dual Fuel System
Gasoline/Natural Gas**



**Dual Fuel System
Gasoline/Natural Gas**

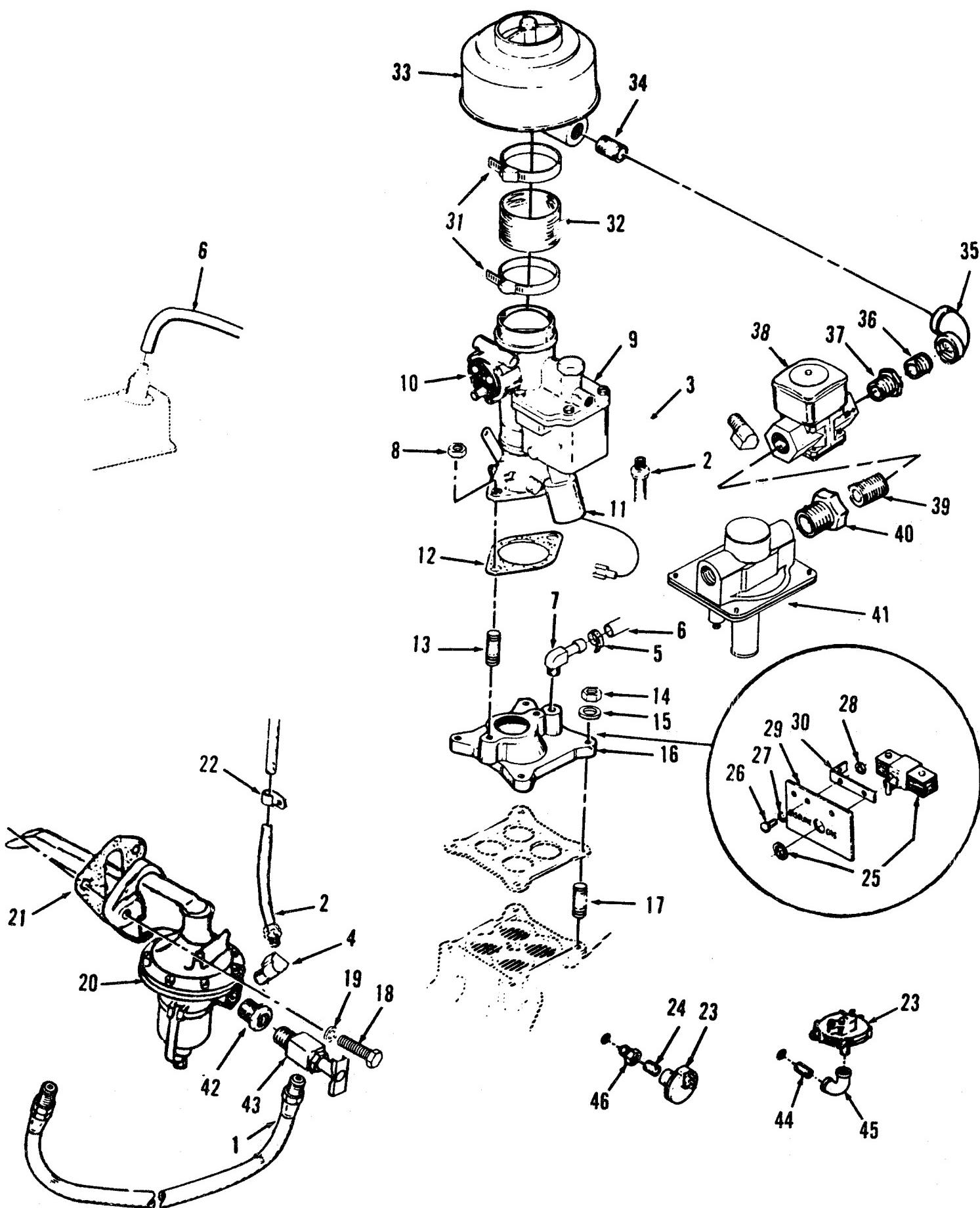
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	25	308-0005	1	Switch, Toggle
2	501-0066	1	Line, Fuel - Flexible	26	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")
3	502-0002	1	Elbow, Line - 90° (1/8 NPT x 1/4 NPT Line)	27	850-0030	2	Washer, Lock - Spring (#10)
4	502-0041	1	Elbow, Line - 90° (1/4 NPT x 1/4 NPT Line)	28	871-0010	2	Nut, Hex (#10-32)
5	503-0547	1	Clamp, Hose	29	308-0150	1	Plate, Mounting - Switch
6	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	30	306-0155	1	Bracket, Mounting
7	502-0237	1	Adapter, Pipe to Hose - 90°	31	503-0999	2	Clamp, Hose
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	32	503-0542	1	Hose, Adapter (1-1/4"ID x 2-1/4"LG)
9	141-0902	1	Carburetor, Gasoline (Includes Parts Marked *)	33	148-0764	1	Mixer, Gas
10	141-0911	1	*Cover, Choke with Heater - 12 VDC	34	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2"LG)
11	141-0850	1	*Solenoid, Fuel Cutoff - 12 VDC	35	505-0040	1	Elbow, Pipe - 90° (1/2 NPT)
12	141-0852	1	*Gasket	36	505-0100	1	Nipple, Pipe (1/2 NPT x 1-1/8"LG)
13	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	37	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
14	110-0445	4	Nut, Hex (5/16-24)	38	148-0597	1	Regulator, Pressure - Gas (Nat. Gas) (3/4 NPT)
15	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)	39	502-0029	1	Adapter, Fuel Line
16	145-0482	1	Adapter, Carburetor	40	504-0007	1	Valve, Shutoff (1/8 NPT)
17	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)	41	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1")
18	114-0022	2	Screw, Cap - Hex Head (5/16-18 x 1-3/4")	42	505-0039	1	#Elbow, Pipe - 90° (3/8 NPT)
19	850-0045	2	Washer, Lock - Spring (5/16")	43	505-0007	1	+Bushing, Reducer (1/4 NPT x 1/8 NPT)
20	149-1437	1	Pump, Fuel				
21	149-1436	1	Gasket				
22	332-1554	1	Clamp, Loop				
23	148-0367	1	Switch, Control - Vacuum (12 VDC)				
24	505-0098	1	+Nipple, Pipe - Close (1/8 NPT x 3/4" LG)				

* - Parts included with Carburetor.

- Use begin 4-88 for Vertical Mounting of Vacuum
Switch.

+ - Not used after 4-88.

**Dual Fuel System
Gasoline/LPG Vapor**



**Dual Fuel System
Gasoline/LPG Vapor**

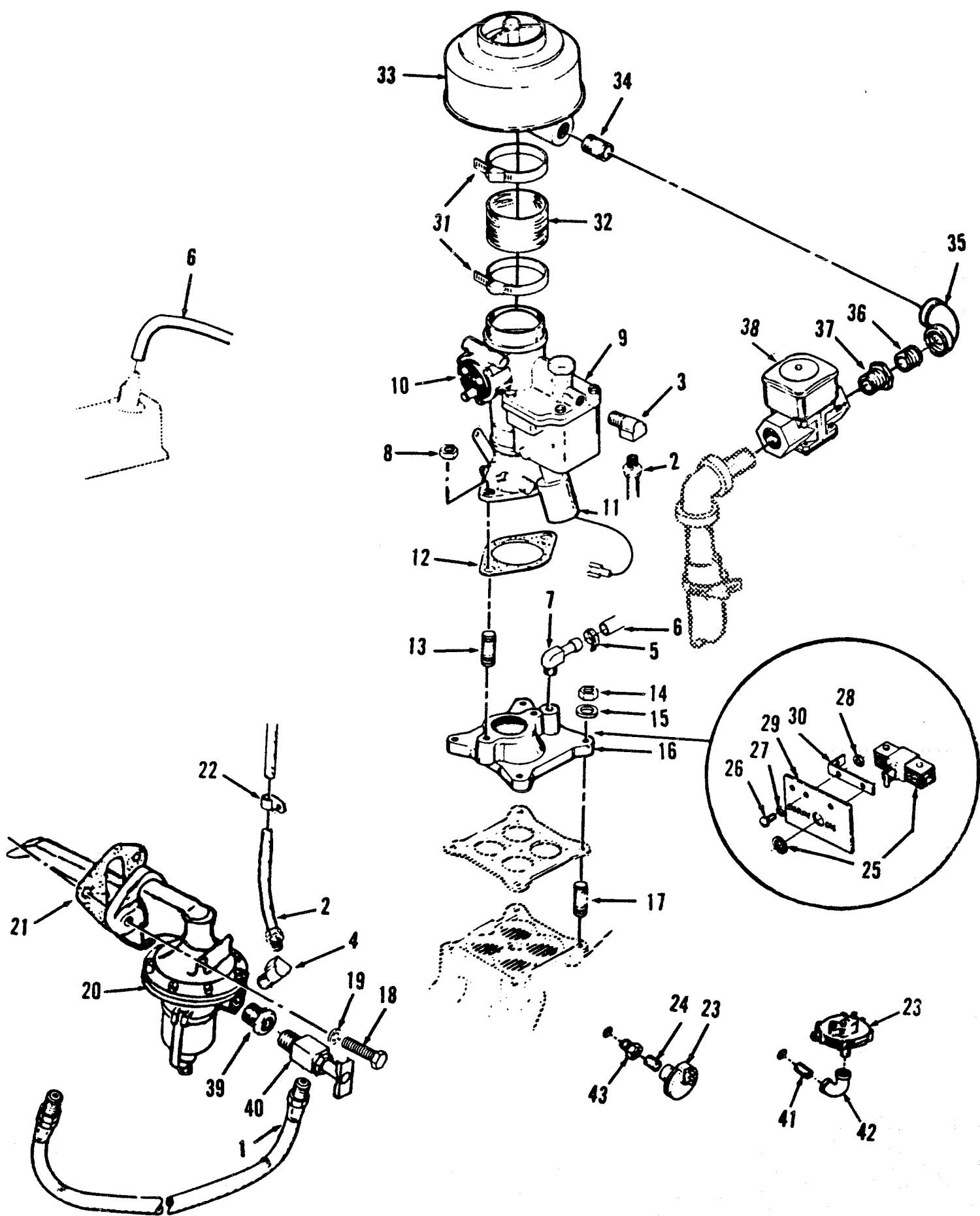
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	27	850-0030	2	Washer, Lock - Spring (#10)
2	501-0066	1	Line, Fuel - Flexible	28	871-0010	2	Nut, Hex (#10-32)
3	502-0002	1	Elbow, Line - 90° (1/8 NPT x 1/4 NPT Line)	29	308-0150	1	Plate, Mounting - Switch
4	502-0041	1	Elbow, Line - 90° (1/4 NPT x 1/4 NPT Line)	30	306-0155	1	Bracket, Mounting
5	503-0547	1	Clamp, Hose	31	503-0465	2	Clamp, Hose
6	503-1100	1	Hose, Rubber (1/2" ID x 23"LG)	32	503-0542	1	Hose, Rubber (1-1/4"ID x 2-1/4"LG)
7	502-0237	1	Adapter, Pipe to Hose - 90°	33	148-0764	1	Mixer, Gas
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	34	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2"LG)
9	141-0841	1	Carburetor, Gasoline (Includes Parts Marked *)	35	505-0040	1	Elbow, Pipe - 90° (1/2 NPT)
10	141-0911	1	*Cover, Choke with Heater - 12 VDC	36	505-0100	1	Nipple, Pipe (1/2 NPT x 1-1/8"LG)
11	141-0850	1	*Solenoid, Fuel Cutoff - 12 VDC	37	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
12	141-0852	1	*Gasket	38	307-0312	1	Valve, Solenoid - 3/4 NPT (12 VDC)
13	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	39	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)
14	110-0445	4	Nut, Hex (5/16-24)	40	505-0129	1	Bushing, Reducer (1 NPT x 3/4 NPT)
15	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)	41	148-0636	1	Regulator, Pressure - Gas (LPG Vapor) 1 NPT
16	145-0482	1	Adapter, Carburetor	42	502-0029	1	Bushing, Reducer - Brass (1/4 NPT x 1/8 NPT)
17	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)	43	504-0007	1	Valve, Shutoff (1/8 NPT)
18	114-0022	2	Screw, Cap - Hex Head (5/16-18 x 1-3/4")	44	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1")
19	850-0045	2	Washer, Lock - Spring (5/16")	45	505-0039	1	#Elbow, Pipe - 90° (3/8 NPT)
20	149-1437	1	Pump, Fuel	46	505-0007	1	+Bushing, Reducer (1/4 NPT x 1/8 NPT)
21	149-1436	1	Gasket				
22	332-1554	1	Clamp, Loop				
23	148-0367	1	Switch, Control - Vacuum (12 VDC)				
24	505-0098	1	+Nipple, Pipe Close (1/8 NPT x 3/4"LG)				* - Parts included with Carburetor.
25	308-0005	1	Switch, Toggle				# - Use begin 4-88 for Vertical Mounting of Vacuum Switch.
26	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")				+ - Not used after 4-88.

* - Parts included with Carburetor.

- Use begin 4-88 for Vertical Mounting of Vacuum
Switch.

+ - Not used after 4-88.

**Dual Fuel System
Gasoline/LPG Liquid**



**Dual Fuel System
Gasoline/LPG Liquid**

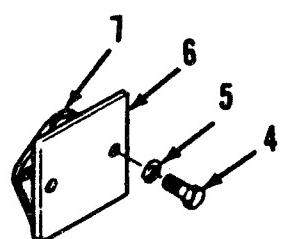
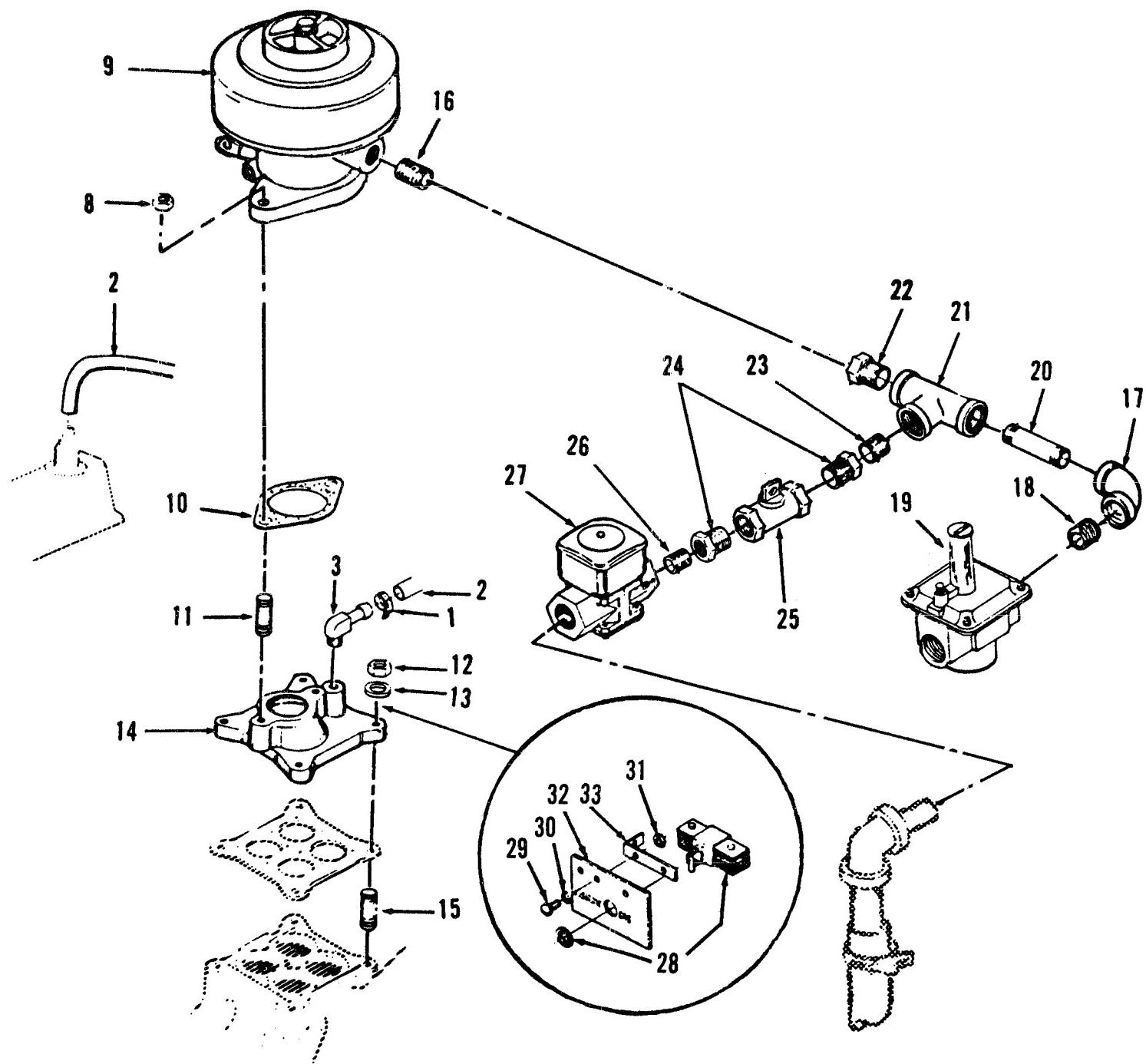
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	25	308-0005	1	Switch, Toggle
2	501-0008	1	Line, Fuel - Flexible	26	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")
3	502-0002	1	Elbow, Line - 90° (1/8 NPT x 1/4 NPT Line)	27	850-0030	2	Washer, Lock - Spring (#10)
4	502-0041	1	Elbow, Line - 90° (1/4 NPT x 1/4 NPT Line)	28	871-0010	2	Nut, Hex (#10-32)
5	503-0547	1	Clamp, Hose	29	308-0150	1	Plate, Mounting - Switch
6	503-1100	1	Hose, Rubber (1/2" ID x 23"LG)	30	306-0155	1	Bracket, Mounting
7	502-0237	1	Adapter, Pipe to Hose - 90°	31	503-0465	2	Clamp, Hose
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	32	503-0542	1	Hose, Rubber (1-1/4"ID x 2-1/4"LG)
9	141-0902	1	Carburetor, Gasoline (Includes Parts Marked *)	33	148-0764	1	Mixer, Gas
10	141-0911	1	*Cover, Choke with Heater - 12 VDC	34	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2"LG)
11	141-0850	1	*Solenoid, Fuel Cutoff - 12 VDC	35	505-0040	1	Elbow, Pipe - 90° (1/2 NPT)
12	141-0852	1	*Gasket	36	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2"LG)
13	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	37	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
14	110-0445	4	Nut, Hex (5/16-24)	38	307-0312	1	Valve, Solenoid - 3/4 NPT (12 VDC)
15	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)	39	502-0029	1	Bushing, Reducer - Brass (1/4NPT x 1/8NPT)
16	145-0482	1	Adapter, Carburetor	40	504-0007	1	Valve, Shutoff (1/8NPT)
17	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)	41	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1")
18	114-0022	2	Screw, Cap - Hex Head (5/16-18 x 1-3/4")	42	505-0039	1	#Elbow, Pipe - 90° (3/8 NPT)
19	850-0045	2	Washer, Lock - Spring (5/16")	43	505-0007	1	+Bushing, Reducer (1/4 NPT x 1/8 NPT)
20	149-1437	1	Pump, Fuel				*
21	149-1436	1	Gasket				# - Use begin 4-88 for Vertical Mounting of Vacuum
22	332-1554	1	Clamp, Loop				Switch.
23	148-0367	1	Switch, Control - Vacuum (12 VDC)				+ - Not used after 4-88.
24	505-0098	1	+Nipple, Pipe Close (1/8 NPT x 3/4"LG)				

* - Parts included with Carburetor.

- Use begin 4-88 for Vertical Mounting of Vacuum Switch.

+ - Not used after 4-88.

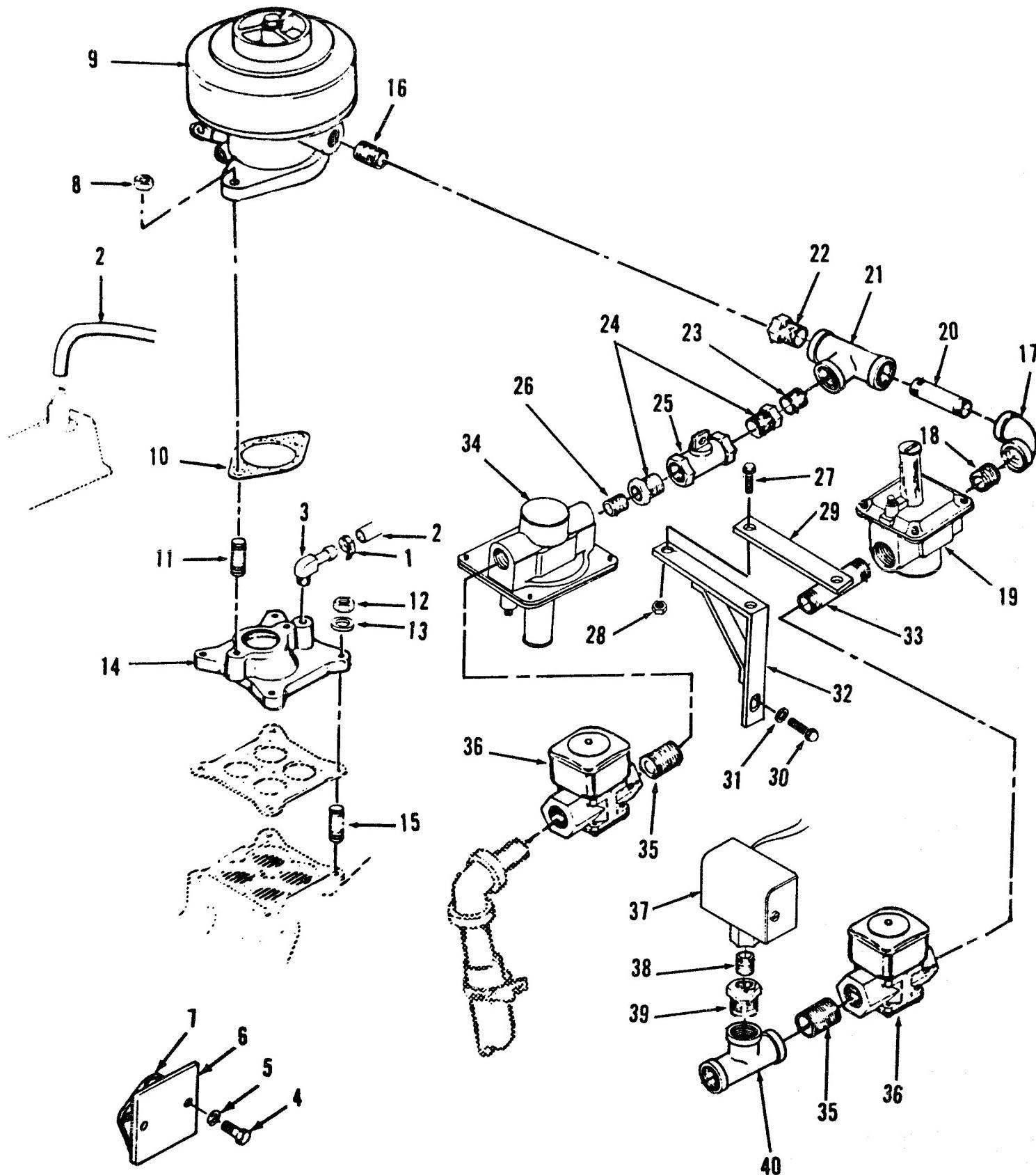
**Dual Fuel System
LPG and Natural Gas
(Manual Changeover)**



**Dual Fuel System
LPG and Natural Gas
(Manual Changeover)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0547	1	Clamp, Hose	19	148-0601	1	Regulator, Pressure - Gas (Nat Gas) 3/4 NPT
2	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	20	505-0084	1	Nipple, Pipe (3/4 NPT x 2-1/2"LG)
3	502-0237	1	Adapter, Pipe to Hose - 90°	21	505-0166	1	Tee, Pipe (3/4 NPT)
4	800-0025	2	Screw, Cap - Hex Head (5/16-18 x 5/8")	22	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
5	850-0045	2	Washer, Lock - Spring (5/16")	23	505-0102	1	Nipple, Pipe (3/4 NPT x 1-3/8"LG)
6	149-0638	1	Plate, Cover - Fuel Pump Mounting Hole	24	505-0129	2	Bushing, Reducer (1 NPT x 3/4 NPT)
7	149-1436	1	Gasket	25	148-0626	1	Valve, Control - Manual
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	26	505-0085	1	Nipple, Pipe (3/4 NPT x 2"LG)
9	148-0763	1	Carburetor, Gas Vapor	27	307-0834	1	Valve, Solenoid - 3/4 NPT (12 VDC)
10	141-0852	1	Gasket	28	308-0005	1	Switch, Toggle
11	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	29	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")
12	110-0445	4	Nut, Hex (5/16-24)	30	850-0030	2	Washer, Lock - Spring (#10)
13	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)	31	871-0010	2	Nut, Hex (#10-32)
14	145-0482	1	Adapter, Carburetor	32	308-0150	1	Plate, Mounting - Switch
15	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)	33	306-0155	1	Bracket, Mounting
16	505-0100	1	Nipple, Pipe (1/2 NPT x 1-1/8"LG)				
17	505-0132	1	Elbow, Pipe - 90° (3/4 NPT)				
18	505-0102	1	Nipple, Pipe (3/4 NPT x 1-3/8"LG)				

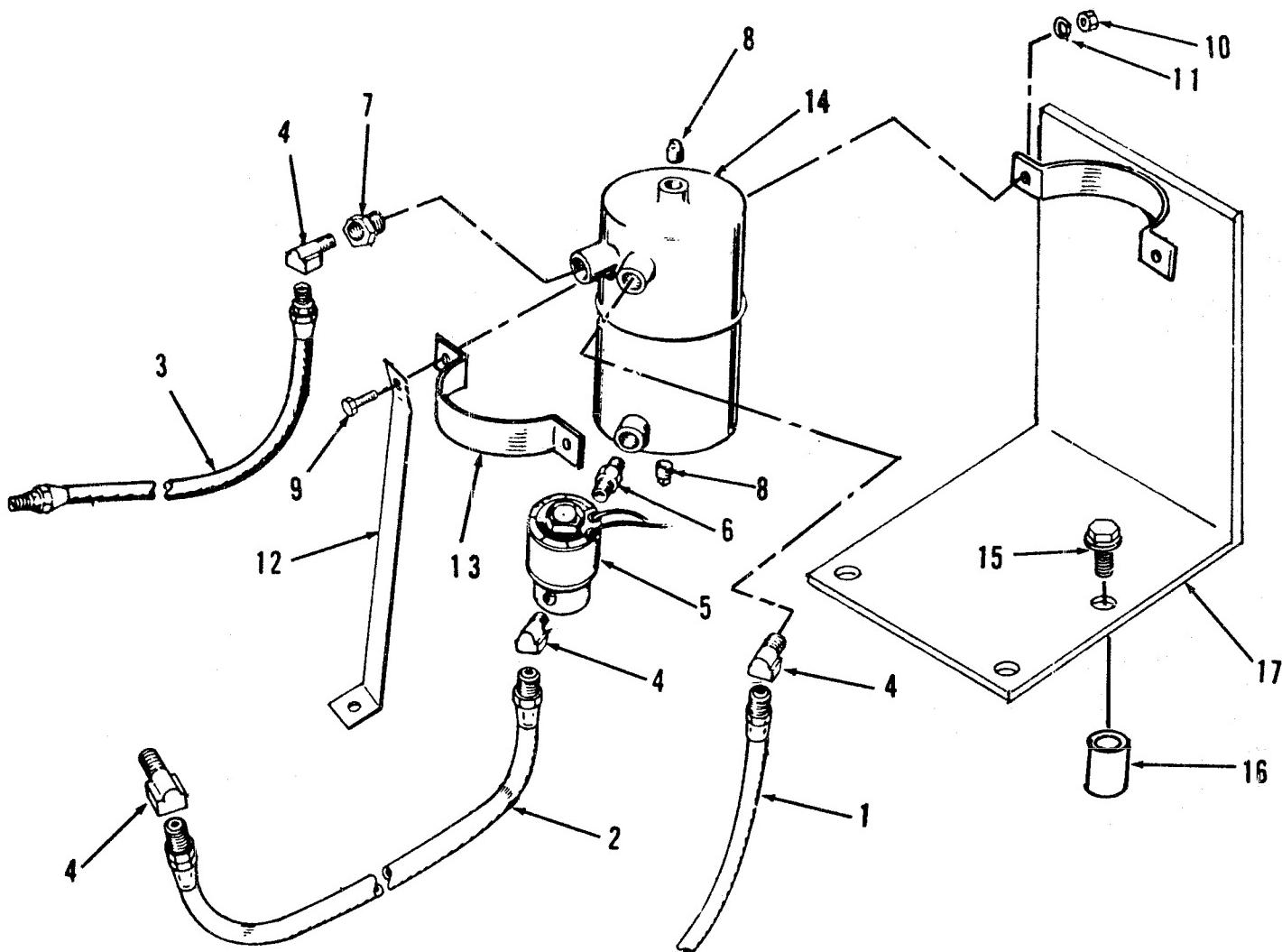
**Dual Fuel System
LPG and Natural Gas
(Automatic Changeover)**



**Dual Fuel System
LPG and Natural Gas
(Automatic Changeover)**

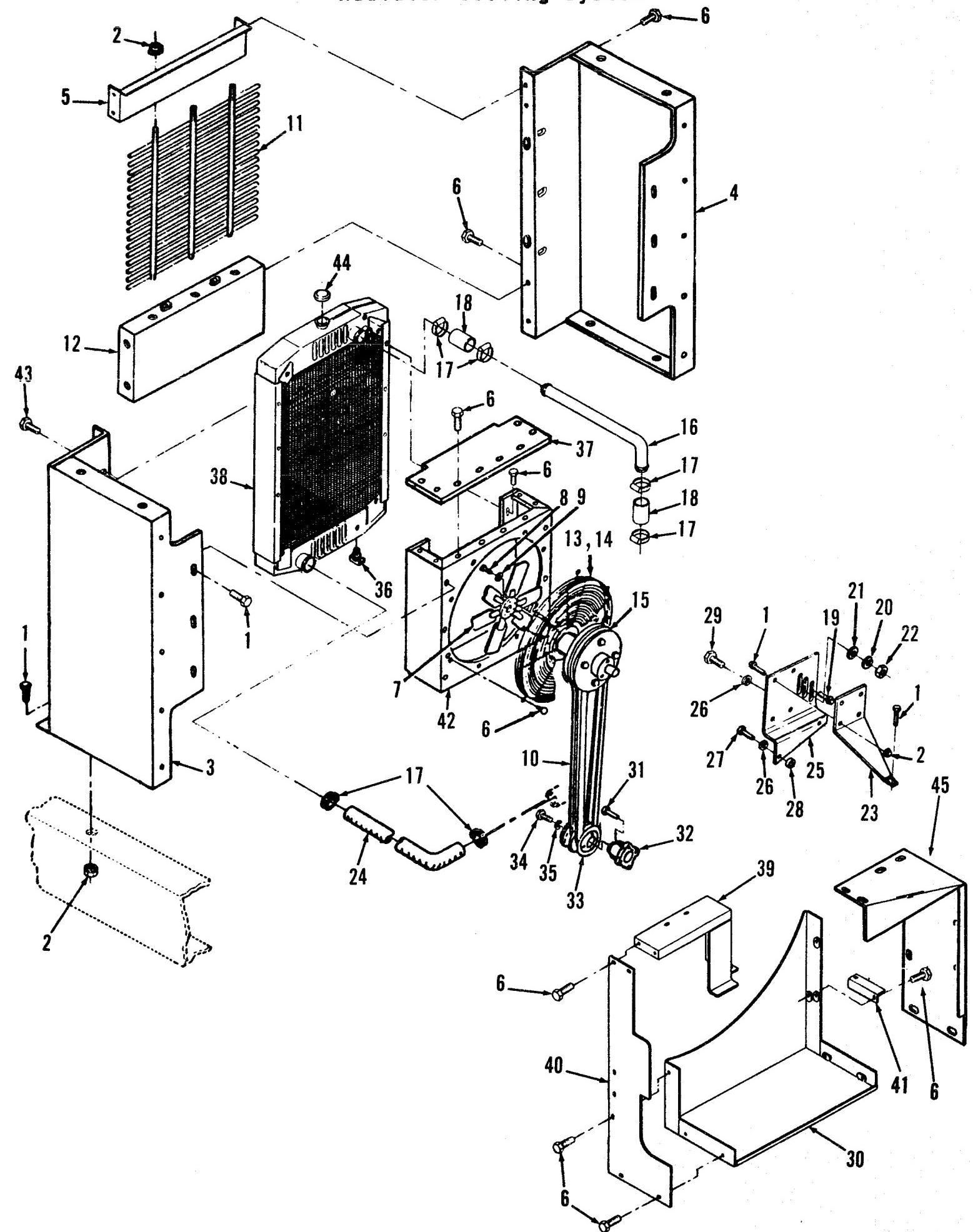
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0547	1	Clamp, Hose	22	505-0021	1	Bushing, Reducer (3/4 NPT x
2	503-1100	1	Hose, Rubber (1/2" ID x 23"LG)	23	505-0102	1	Nipple, Pipe (3/4 NPT x 1-3/8"LG)
3	502-0237	1	Adapter, Pipe to Hose - 90°	24	505-0129	2	Bushing, Reducer (1 NPT x 3/4 NPT)
4	800-0025	2	Screw, Cap - Hex Head (5/16-18 x 5/8")	25	148-0626	1	Valve, Control - Manual
5	850-0045	2	Washer, Lock - Spring (5/16")	26	505-0085	1	Nipple, Pipe (3/4 NPT x 2"LG)
6	149-0638	1	Plate, Cover - Fuel Pump Mounting Hole	27	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
7	149-1436	1	Gasket	28	870-0218	2	Nut, Self-Locking - Hex (1/4-20)
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	29	148-0784	1	Strap
9	148-0763	1	Carburetor, Gas Vapor	30	821-0029	1	Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")
10	141-0852	1	Gasket	31	526-0013	1	Washer, Flat (3/8")
11	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	32	148-0787	1	Brace, Support
12	110-0445	4	Nut, Hex (5/16-24)	33	505-0332	1	Nipple, Pipe (3/4 NPT x 3"LG)
13	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)	34	148-0637	1	Regulator, Pressure - Gas (LPG Gas) 3/4 NPT
14	145-0482	1	Adapter, Carburetor	35	505-0102	2	Nipple, Pipe (3/4 NPT x 1-3/8"LG)
15	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-1/8"LG)	36	307-0312	2	Valve, Solenoid - 3/4 NPT (12 VDC)
16	505-0100	1	Nipple, Pipe (3/4 NPT x 1-1/8"LG)	37	148-0627	1	Switch, Pressure - 12 VDC
17	505-0132	1	Elbow, Pipe - 90° (3/4 NPT)	38	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8"LG)
18	505-0102	1	Nipple, Pipe (3/4 NPT x 1-3/8"LG)	39	505-0020	1	Bushing, Reducer (3/4 NPT x 1/4 NPT)
19	148-0597	1	Regulator, Pressure - Gas (Nat Gas) 3/4 NPT	40	505-0166	1	Tee, Pipe (3/4 NPT)
20	505-0084	1	Nipple, Pipe (3/4 NPT x 2-1/2"LG)				
21	505-0166	1	Tee, Pipe (3/4 NPT)				

**Fuel Reservoir
(Day Tank)**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0010	1	Line, Fuel - Flexible (Incoming)	9	821-0011	2	Screw, Self-Locking - Hex Washer Head (1/4-20 x 7/8")
2	501-0003	1	Line, Fuel - Flexible (Tank to Carb)	10	870-0212	2	Nut, Self-Locking - Hex Washer Head (1/4-20)
3	501-0011	1	Line, Fuel - Flexible (Overflow Return)	11	850-0040	2	Washer, Lock - Spring (1/4")
4	502-0002	4	Elbow, Pipe - 90°, Brass (1/4 SAE x 1/8 NPT)	12	159-1037	2	Brace
5	307-0565	1	Valve, Solenoid - 12 VDC (1/8 NPT)	13	159-0253	1	Clamp, Mounting - Tank
6	502-0082	1	Nipple, Pipe - Hex (1/8 NPT)	14	159-0294	1	Tank, Fuel Reservoir
7	159-0705	1	Bushing, Reducer with Restrictor - Hex (3/8 NPT x 1/8 NPT)	15	821-0023	1	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1-1/2")
8	505-0057	2	Plug, Pipe - Square Head (1/8 NPT)	16	159-1039	1	Spacer, Sleeve
				17	159-1038	1	Bracket, Mounting - Tank

Radiator Cooling System

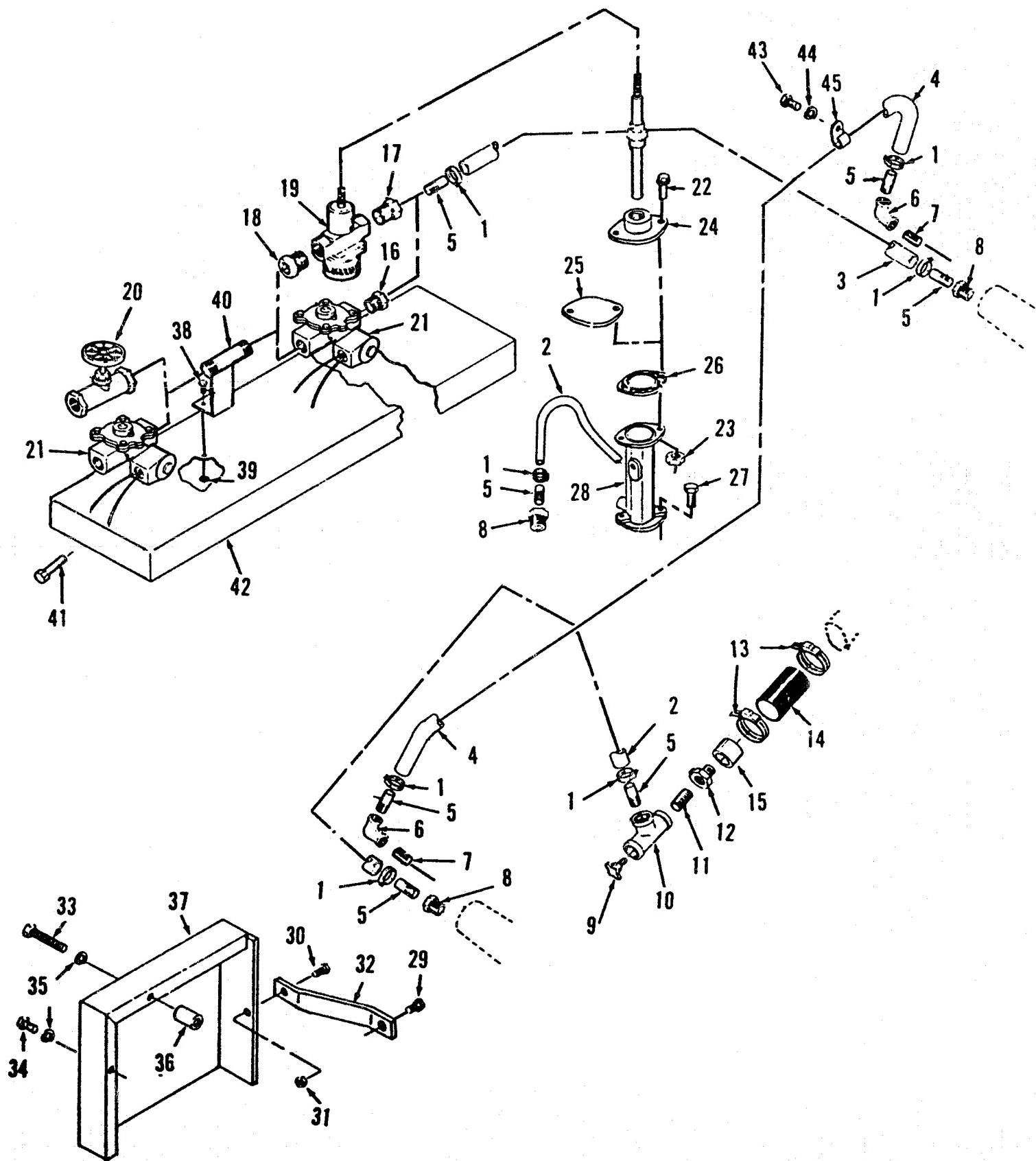


Radiator Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0029	15	Screw, Cap - Hex Head (3/8-16 x 3/4")	21	526-0035	1	Washer, Flat (1/2)
2	870-0281	15	Nut, Self-Locking - Hex Washer Head (3/8-16)	22	862-0016	1	Nut, Hex (1/2-13)
3	130-3038-01	1	Guard, Radiator (Right Hand)	23	130-0973	1	Brace, Bracket - Fan Drive
4	130-3038-02	1	Guard, Radiator (Left Hand)	24	503-1558	1	Hose, Radiator - Lower
5	130-3039	1	Support, Grille	25	130-0971	1	Bracket, Drive - Fan
6	821-0018	44	Screw, Cap - Hex Head (1/4-20 x 5/8")	26	850-0050	2	Washer, Lock - Spring (3/8)
7	130-0428	1	Fan, Radiator	27	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
8	800-0028	4	Screw, Cap - Hex Head (5/16-18 x 1")	28	191-0864	1	Spacer
9	850-0045	4	Washer, Lock - Spring (5/16)	29	800-0050	1	Screw, Cap - Hex Head (3/8-16 x 1")
10	511-0153	1	Belt, Vee (Matched Set)	30	130-3133	1	Guard, Belt
11	130-3088	1	Grille Assembly	31	800-0055	4	Screw, Cap - Hex Head (3/8-16 x 2-1/4")
12	130-3037	1	Support, Grille	32	130-0968	1	Adapter, Pulley
13	130-3137-01	1	Guard, Fan (Right Hand)	33	104-1673	1	Pulley, Crankshaft (6" O.D.)
14	130-3137-02	1	Guard, Fan (Left Hand)	34	800-0023	4	Screw, Cap - Hex Head (1/4-20 x 1-3/8")
15	130-2983	1	Hub and Pulley Assembly (Includes the following non- illustrated parts marked *)	35	850-0040	4	Washer, Lock - Spring (1/4)
	130-0972	1	*Collar, Hub - Fan	36	504-0028	1	Cock, Drain (3/8-18 NPT)
	518-0348	2	*Ring, Retaining - Internal	37	130-3138	2	Shroud, Fan
	821-0011	4	*Screw, Self-Locking - Hex Washer Head (1/4-20 x 7/8")	38	130-3144	1	Radiator
	512-0170	1	*Pulley, Fan (5" O.D.)	39	130-3146	1	Guard, Belt
	130-0970	1	*Bearing, Hub - Fan	40	130-3145	1	Guard, Belt
	130-0969	1	*Hub, Drive - Fan	41	130-3272	1	Bracket, Guard - Belt
16	130-3041	1	Tube, Inlet - Upper Radiator	42	130-3034	1	Wrapper, Shroud - Fan
17	503-0365	6	Clamp, Hose	43	821-0028	12	Screw, Cap - Hex Head (3/8-16 x 1/2")
18	503-1599	2	Hose	44	130-1788	1	Cap, Radiator
19	821-0016	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 3/4")	45	130-3134	1	Guard, Belt
20	850-0060	1	Washer, Lock - Spring (1/2)				

* - Parts included with Hub and Pulley Assembly.

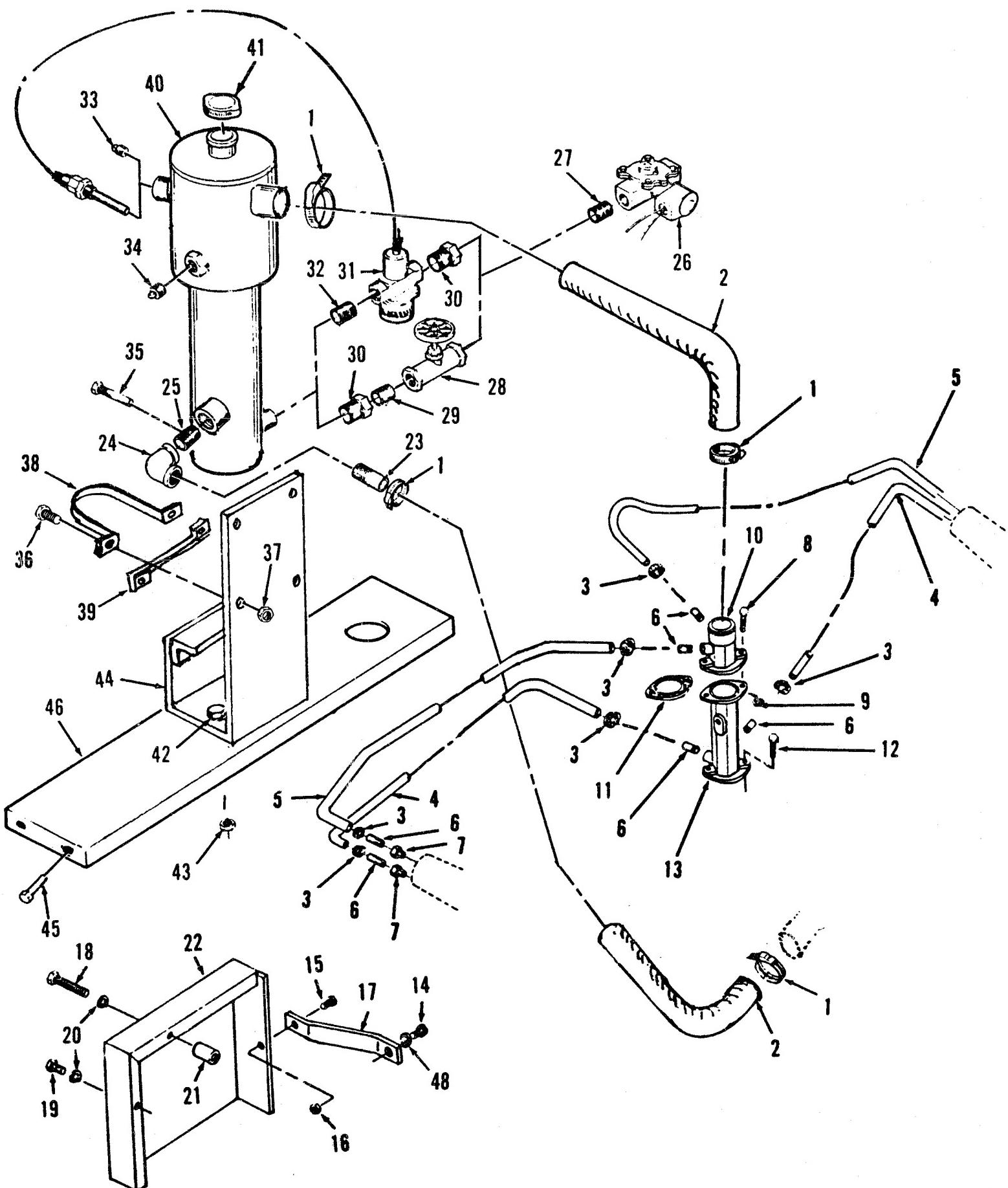
**Cooling System
(City Water)**



**Cooling System
(City Water)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0183	8	Clamp, Hose	24	130-1021	1	Plate, Outlet with Tapped Hole
2	503-0833	2	Hose, Rubber (5/8"ID x 24"LG)	25	130-1022	1	Plate, Outlet
3	503-1168	1	Hose, Rubber (5/8"ID x 36"LG)	26	130-1024	2	Gasket
4	503-1169	1	Hose, Rubber (5/8"ID x 48"LG)	27	821-0021	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1")
5	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	28	130-1019	1	Outlet, Water
6	505-0120	2	Elbow, Pipe - 90° (3/8 NPT)	29	821-0014	1	Screw, Self-Locking - Hex Washer Head (5/16-18 x 2")
7	505-0101	2	Nipple, Pipe - Close (3/8 NPT)	30	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")
8	505-0019	6	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	31	870-0212	1	Nut, Self-Locking - Hex Washer Head
9	504-0028	1	Cock, Drain (3/8 NPT)	32	130-1008	1	Strap
10	505-0060	1	Tee, Pipe (3/8 NPT)	33	800-0054	1	Screw, Cap - Hex Head (3/8-16 x 2")
11	505-0101	1	Nipple, Pipe - Close (3/8 NPT)	34	800-0046	1	Screw, Cap - Hex Head (3/8-16 x 1/2")
12	505-0128	1	Bushing, Reducer - Hex (1-1/4 NPT x 3/8 NPT)	35	850-0050	2	Washer, Lock - Spring (3/8")
13	503-0465	2	Clamp, Hose	36	130-1009	1	Spacer, Sleeve
14	503-0809	1	Hose, Rubber (2-5/8"ID x 3"LG)	37	130-1050	1	Guard, Belt
15	505-0031	1	Coupling, Pipe (1-1/4 NPT)	38	821-0013	2	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1")
16	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	39	870-0065	2	Nut, Self-Locking - Hex (1/4-20)
17	505-0131	1	Bushing, Reducer - Hex (3/4 NPT x 3/8 NPT)	40	110-0526	1	Nipple, Pipe with Bracket (1/2 NPT)
18	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	41	821-0014	7	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
19	309-0241	1	Valve, Control - Temperature Regulating	42	130-0499	1	Plate, Mounting
20	504-0019	1	Valve, Globe (1/2 NPT)	43	800-0046	2	Screw, Cap - Hex Head (3/8-16 x 1/2")
21	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	44	850-0050	2	Washer, Lock - Spring (3/8")
22	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1-1/2")	45	148-0274	2	Bracket, Support - Hose
23	870-0048	2	Nut, Self-Locking - Hex Washer Head (5/16-18)				

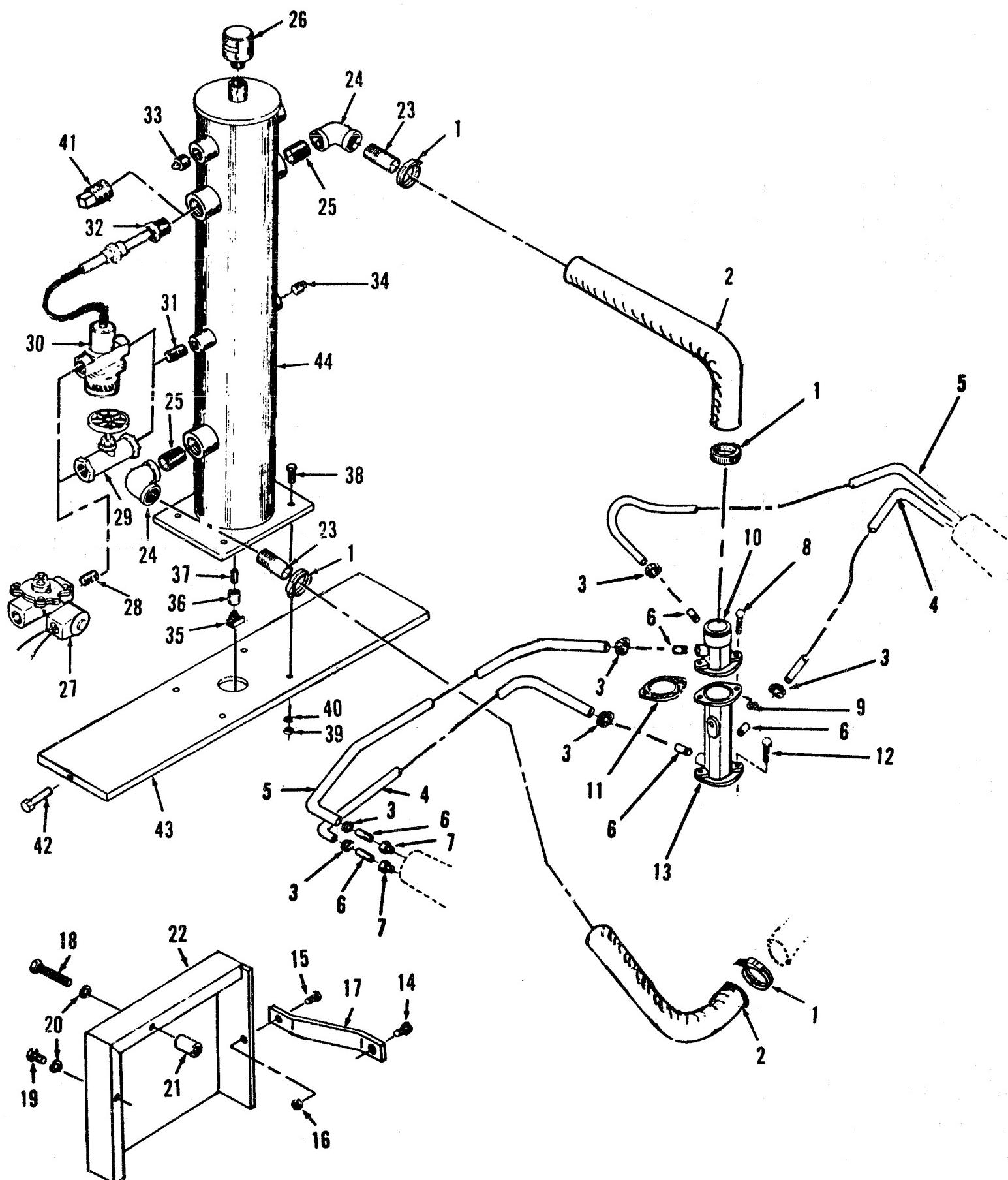
Cooling System
(Heat Exchanger)



**Cooling System
(Heat Exchanger)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0274	4	Clamp, Hose	27	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8")
2	503-0753	2	Hose, Radiator (2"ID x 24"LG)	28	504-0019	1	Valve, Globe (1/2 NPT)
3	503-0183	8	Clamp, Hose	29	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8")
4	503-0386	2	Hose, Rubber (5/8"ID x 23"LG)	30	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)
5	503-0386	2	Hose, Rubber (5/8"ID x 28"LG)	31	309-0241	1	Valve, Control - Temperature Regulating
6	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	32	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8")
7	505-0019	4	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	33	505-0130	1	Plug, Pipe - Square Head (3/4 NPT)
8	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1-1/2")	34	505-0130	1	Plug, Pipe - Square Head (3/4 NPT)
9	870-0048	2	Nut, Self-Locking - Hex (5/16-18)	35	130-1340	1	Pencil, Zinc (3/8 NPT)
10	130-1018	1	Adapter, Thermostat	36	821-0011	5	Screw, Self-Locking - Hex Washer Head (1/4-20 x 7/8")
11	130-1024	2	Gasket	37	870-0212	5	Nut, Self-Locking - Hex Washer Head (1/4-20)
12	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1")	38	130-0802	2	Strap, Holddown - Heat Exchanger
13	130-1019	1	Outlet, Water	39	130-1112	1	Support, Heat Exchanger
14	800-0069	1	Screw, Hex Head Cap (7/16-14 x 3/4")	40	130-1111	1	Heat Exchanger (Includes Cap)
15	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")	41	130-0661	1	Cap, Radiator (7 Lb PSI)
16	870-0212	1	Nut, Self-Locking - Hex Washer Head (1/4-20)	42	821-0016	3	Screw, Self-Locking - Hex Washer Head (5/16-18 x 3/4")
17	130-1008	1	Strap, Belt Guard	43	870-0048	3	Nut, Self-Locking - Hex (5/16-18)
18	800-0054	1	Screw, Cap - Hex Head (3/8-16 x 2")	44	130-1110	1	Bracket, Mounting - Heat Exchanger
19	800-0046	1	Screw, Cap - Hex Head (3/8-16 x 1/2")	45	821-0014	6	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
20	850-0050	2	Washer, Lock - Spring (3/8")	46	130-0805	1	Plate, Mounting - Heat Exchanger
21	130-1009	1	Spacer, Belt Guard	47	503-0846	1	Hose, Radiator (2.00ID x 20.00)
22	130-1050	1	Guard, Belt	48	850-0055	1	Washer, Lock - Spring (7/16")
23	503-0385	1	Nipple, Pipe - Half (1-1/2 NPT x 2"LG)				
24	505-0043	1	Elbow, Pipe - 90° (1-1/2 NPT)				
25	505-0109	1	Nipple, Pipe - Close (1-1/2 NPT)				
26	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)				

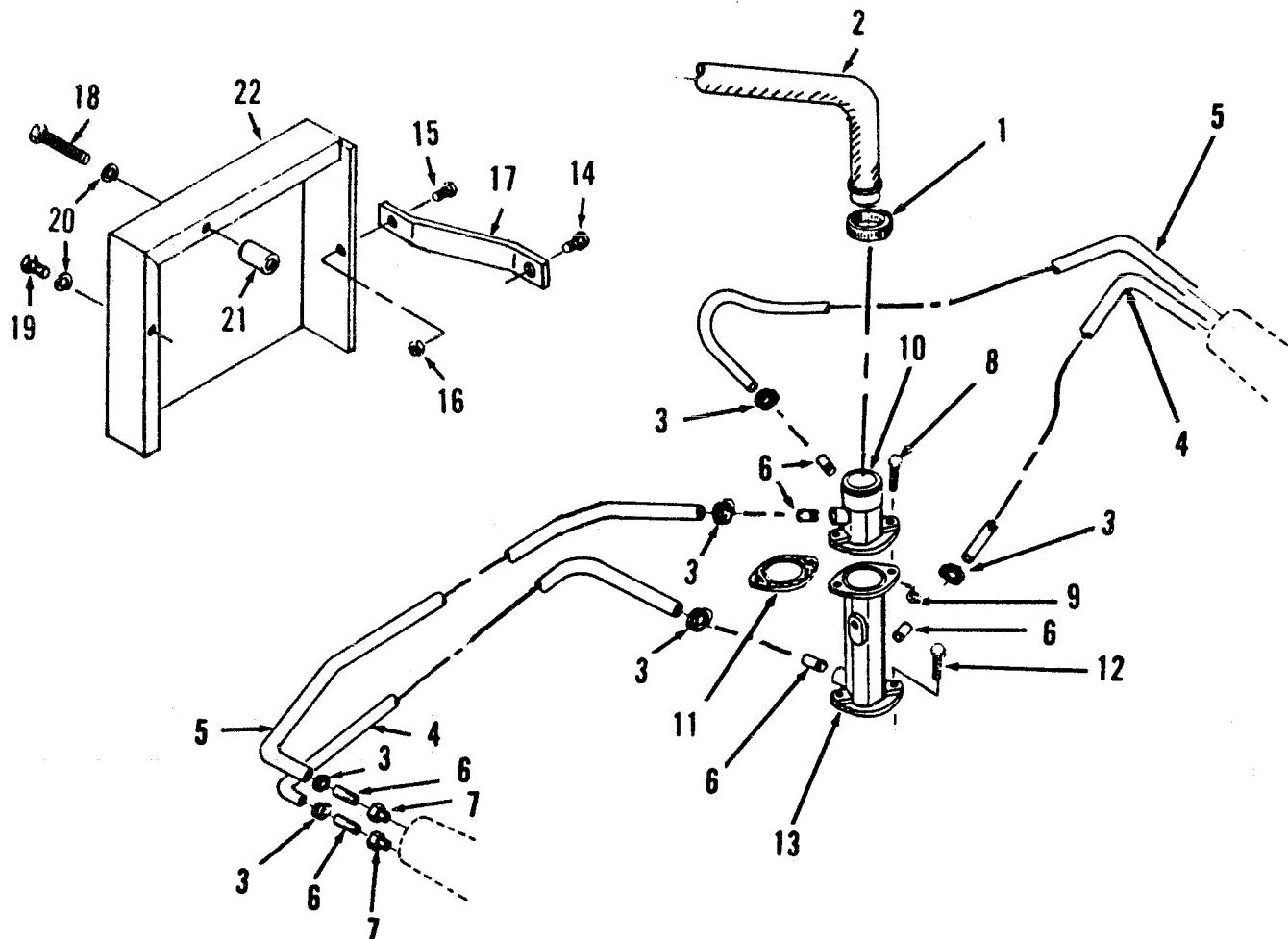
**Cooling System
(Standpipe)**



**Cooling System
(Standpipe)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0274	4	Clamp, Hose	23	505-0385	2	Nipple, Pipe - Half (1-1/2 NPT x 2" LG)
2	503-0753	1	Hose, Radiator (2"ID x 19"LG)	24	505-0043	2	Elbow, Pipe - 90° (1-1/2 NPT)
3	503-0183	8	Clamp, Hose	25	505-0220	2	Nipple, Pipe - Close (1-1/2 NPT)
4	503-0386	2	Hose, Rubber (5/8"ID x 24"LG)	26	504-0062	1	Valve, Vacuum Relief (1/2 NPT)
5	503-0386	2	Hose, Rubber (5/8"ID x 36"LG)	27	307-0835	1	Valve, Solenoid - 12 VDC (3/4 NPT)
6	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	28	505-0102	1	Nipple, Pipe - Close (3/4 NPT)
7	505-0019	4	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	29	504-0046	1	Valve, Globe (3/4 NPT)
8	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1-1/2")	30	309-0241	1	Valve, Control - Temperature Regulating (3/4 NPT)
9	870-0048	2	Nut, Self-Locking - Hex (5/16-18)	31	505-0102	1	Nipple, Pipe - Close (3/4 NPT)
10	130-1018	1	Adapter, Thermostat	32	505-0289	1	Bushing, Reducer - Hex (1-1/2 NPT x 3/4 NPT)
11	130-1024	2	Gasket	33	505-0140	1	Plug, Pipe - Square Head (1 NPT)
12	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1")	34	505-0130	1	Plug, Pipe - Square Head
13	130-1019	1	Outlet, Water	35	504-0028	1	Cock, Drain (3/8 NPT)
14	800-0069	1	Screw, Hex Head Cap (7/16-14 x 3/4")	36	505-0028	1	Coupling, Pipe (3/8 NPT)
15	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")	37	505-0101	1	Nipple, Pipe - Close (3/8 NPT)
16	870-0212	1	Nut, Self-Locking - Hex Washer Head (1/4-20)	38	821-0030	4	Screw, Self-Locking - Hex Washer Head (3/8-16 x 1")
17	130-1008	1	Strap	39	870-0133	4	Nut, Self-Locking - Hex (3/8-16)
18	800-0054	1	Screw, Cap - Hex Head (3/8-16 x 2")	40	850-0050	4	Washer, Lock - Spring (3/8")
19	821-0029	1	Screw, Self-Locking (7/16-14 x 3/4")	41	505-0402	1	Plug, Pipe - Square Head (1-1/2 NPT)
20	850-0050	1	Washer, Lock - Spring (3/8")	42	821-0014	7	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
21	130-1009	1	Spacer, Sleeve	43	130-0636	1	Plate, Mounting - Standpipe
22	130-1050	1	Guard, Belt	44	130-0635	1	Standpipe

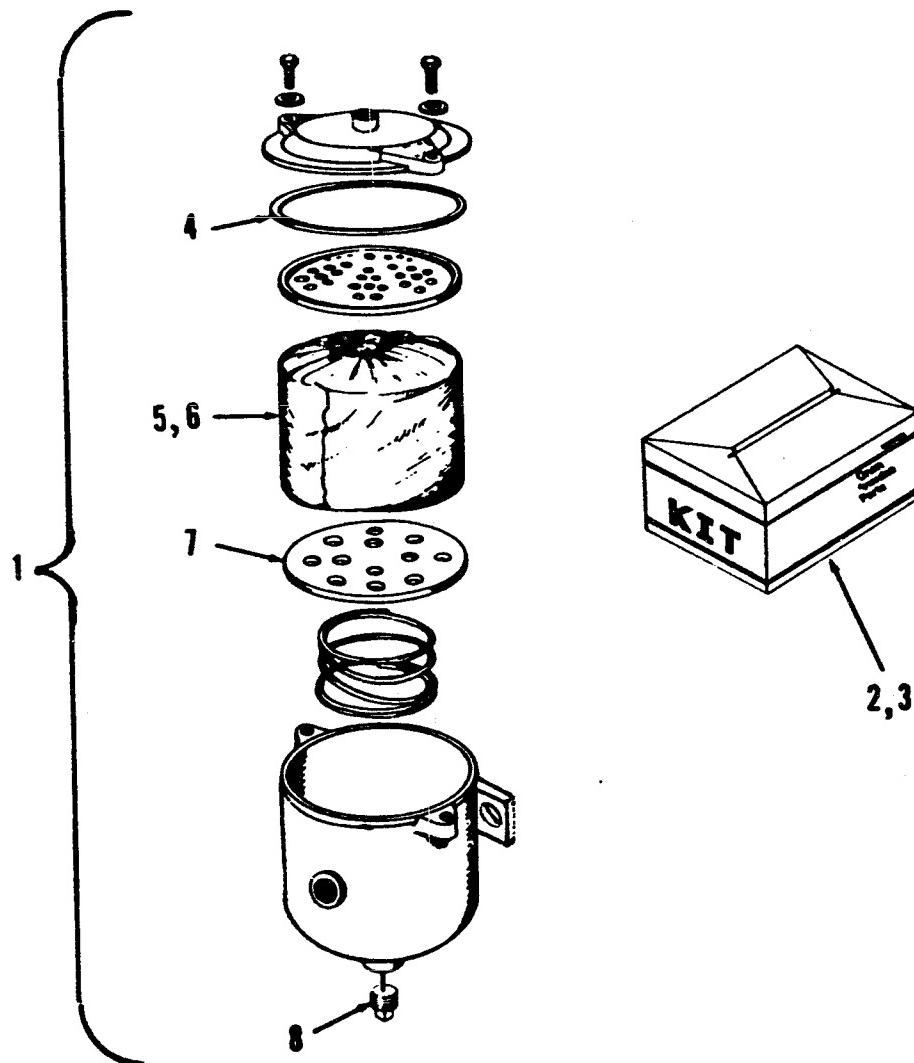
**Cooling System
(Remote Radiator)**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0274	1	Clamp, Hose	13	130-1019	1	Outlet, Water
2	#503-0753	1	Hose, Radiator (2"ID)	14	800-0069	1	Screw, Hex Head Cap (7/16-14 x 3/4")
3	503-0183	8	Clamp, Hose	15	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")
4	503-0386	2	Hose, Rubber (5/8"ID x 24"LG)	16	870-0212	1	Nut, Self-Locking - Hex Washer Head (1/4-20)
5	503-0386	2	Hose, Rubber (5/8"ID x 36"LG)	17	130-1008	1	Strap
6	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	18	800-0054	1	Screw, Cap - Hex Head (3/8-16 x 2")
7	505-0019	4	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	19	821-0029	1	Screw, Self-Locking (7/16-14 x 3/4")
8	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")	20	850-0050	1	Washer, Lock - Spring (3/8")
9	870-0048	2	Nut, Self-Locking - Hex (5/16-18)	21	130-1009	1	Spacer, Sleeve
10	130-1018	1	Adapter, Thermostat	22	130-1050	1	Guard, Belt
11	130-1024	2	Gasket				
12	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1")				

- Required length will vary per installation; measure the hose to be replaced and contact the nearest Authorized Onan Distributor for parts.

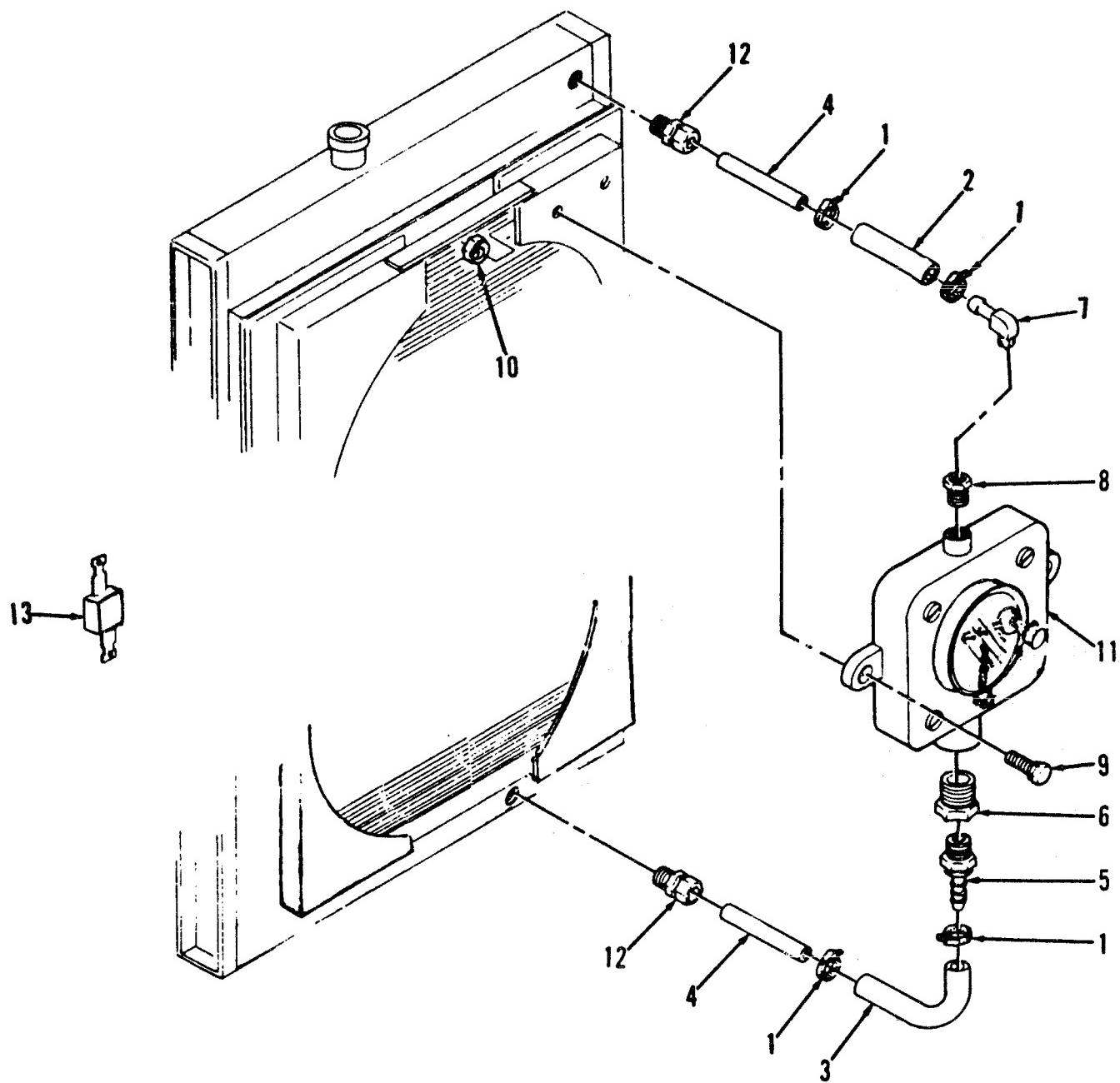
Filter - Coolant



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-0497	1	Filter, Coolant (Includes Element Marked *)	4	130-0778	1	*#Gasket, Cover
2	130-0771	1	Kit, Replacement (Includes Parts Marked *)	5	130-0775	1	*Element (Water)
3	130-0772	1	Kit, Replacement (Includes Parts Marked *)	6	130-0776	1	#Element (Anti-freeze)
				7	130-0780	1	*#Plate, Sacrificial
				8	502-0155	1	Plug, Pipe - Brass (3/8 NPT)

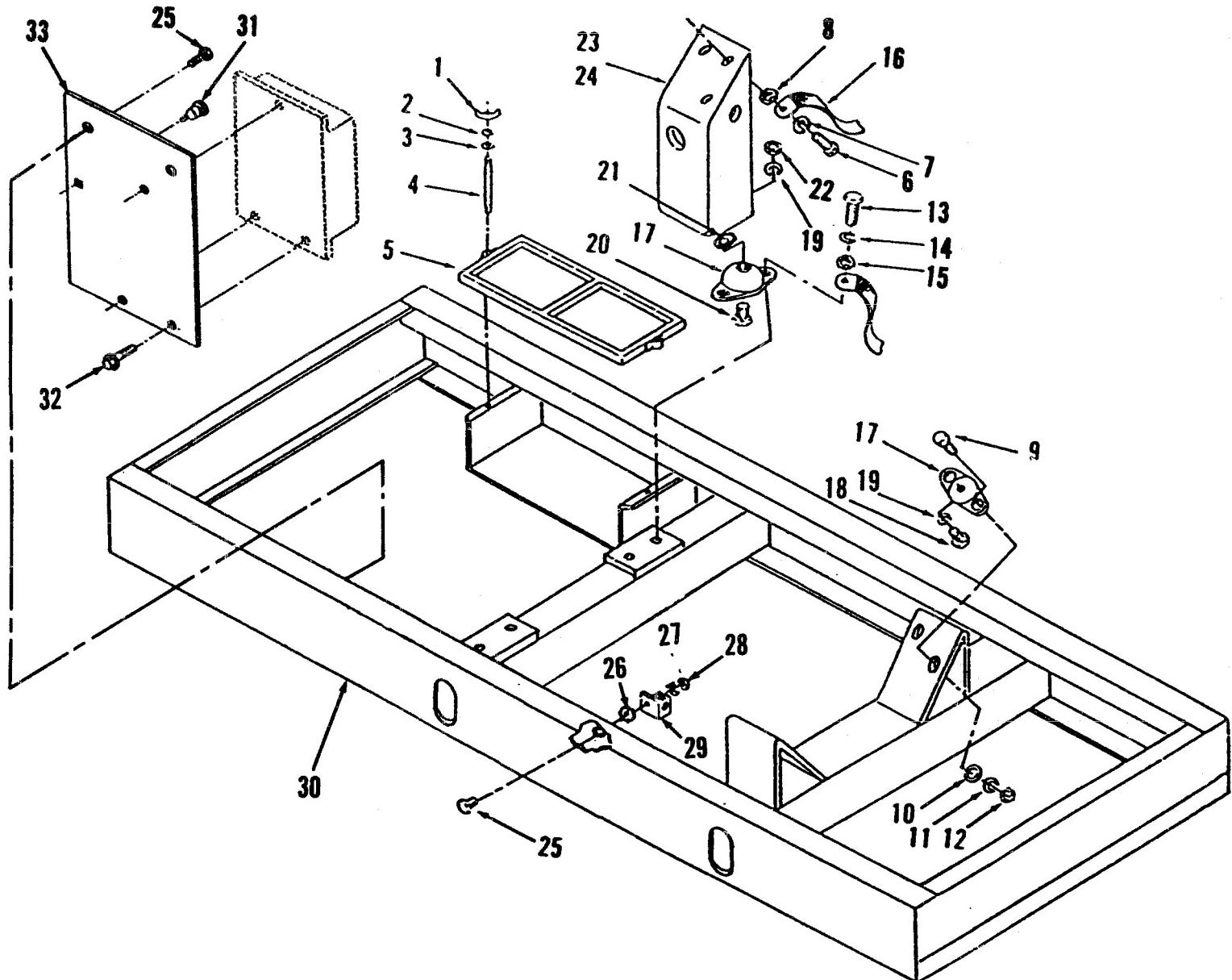
* - Parts included in Replacement Kit.
- Parts included in Replacement Kit.

Switch - Low Coolant Level



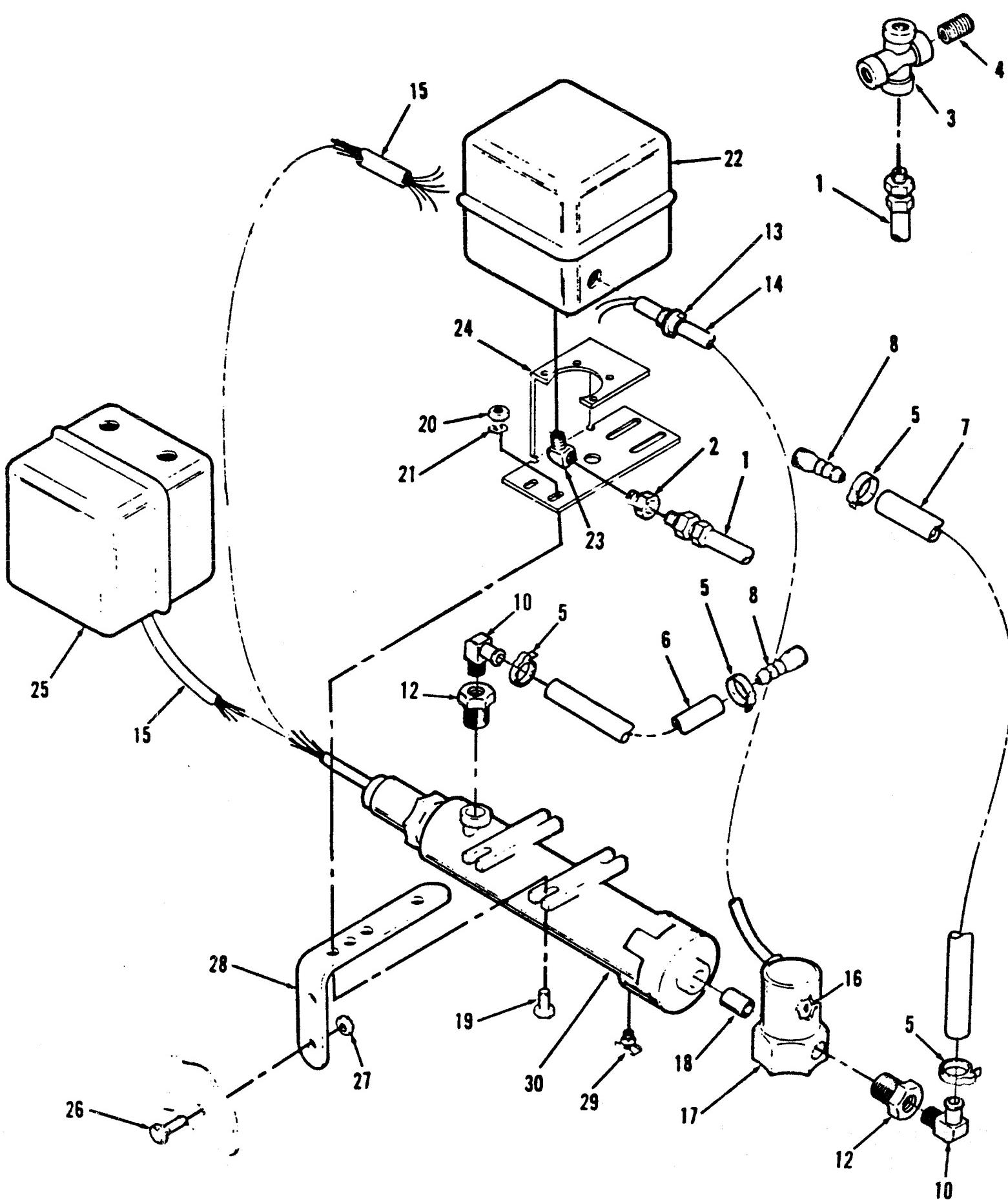
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0446	4	Clamp, Hose	9	821-0011	2	Screw, Self-Locking - Hex Washer Head (1/4-20 x 7/8")
2	503-0743	1	Hose, Rubber (1/4"ID x 18"LG)	10	870-0212	2	Nut, Self-Locking - Hex Washer Head (1/4-20)
3	503-1118	1	Hose, Rubber (1/4"ID x 48"LG)	11	193-0329	1	Switch, Coolant Level
4	130-2053	2	Tube, Copper (1/4"OD x 2"LG)	12	502-0809	2	Adapter, Tube (Blind Hole Fitting) 5/8"OD x 1/4"OD Tube
5	503-0395	1	Connector, Pipe to Hose (1/8 NPT x 3/16"ID Hose)	13	357-0030	2	Diode, Rectifier (Used in Wiring Harness Leads)
6	505-0151	1	Bushing, Reducer - Hex, Brass (1/2 NPT x 1/8 NPT)				
7	502-0313	1	Elbow, Pipe to Hose - 90° (1/8 NPT x 1/4"ID Hose)				
8	505-0007	1	Bushing, Reducer - Hex, Brass (1/4 NPT x 1/8 NPT)				

Chassis



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	865-0007	2	Nut, Wing (5/16-18)	19	850-0079	4	Washer, Lock - Spring (3/4")
2	850-0045	2	Washer, Lock - Spring (5/16")	20	800-0153	2	Screw, Cap - Hex Head (3/4-10 x 1-1/2")
3	526-0115	2	Washer, Flat (5/16")	21	526-0238	2	Washer, Flat (3/4")
4	520-0838	2	Stud (5/16-18 x 4-1/2" LG)	22	862-0008	2	Nut, Hex (3/4-10)
5	416-0338	1	Frame, Holddown - Battery	23	403-2505-01	1	Bracket, Mounting - Engine Right Side
6	800-0071	6	Screw, Cap - Hex Head (7/16-14 x 1")	24	403-2505-02	1	Bracket, Mounting - Engine Left Side (Not Illustrated)
7	850-0055	6	Washer, Lock - Spring (7/16")	25	800-0026	3	Screw, Cap - Hex Head (5/16-18 x 3/4")
8	856-0012	6	Washer, Lock - EIT (7/16")	26	856-0008	1	Washer, Lock - EIT (5/16")
9	800-0071	4	Screw, Cap - Hex Head (7/16-14 x 1")	27	850-0045	1	Washer, Lock - Spring (5/16")
10	526-0219	4	Washer, Flat (7/16")	28	870-0257	1	Nut, Self-locking - Hex Washer Head (5/16-18)
11	850-0055	5	Washer, Lock - Spring (7/16")	29	332-1473	1	Terminal, Lug - Ground
12	862-0004	4	Nut, Hex (7/16-14)	30	403-2546	1	Base, Skid
13	800-0090	4	Screw, Cap - Hex Head (1/2-13 x 1")	31	870-0196	1	Nut Insulation
14	850-0060	4	Washer, Lock - Spring (1/2")	32	821-0018	3	Screw, Lockhead (1/4-20 x 5/8")
15	856-0013	2	Washer, Lock - EIT (1/2")	33	166-0773	1	Bracket, Ignition Module
16	337-0090	1	Strap, Electrical - Ground				
17	402-0371	4	Mount, Vibration				
18	800-0520	2	Screw, Cap - Hex Head (3/4-10 x 1")				

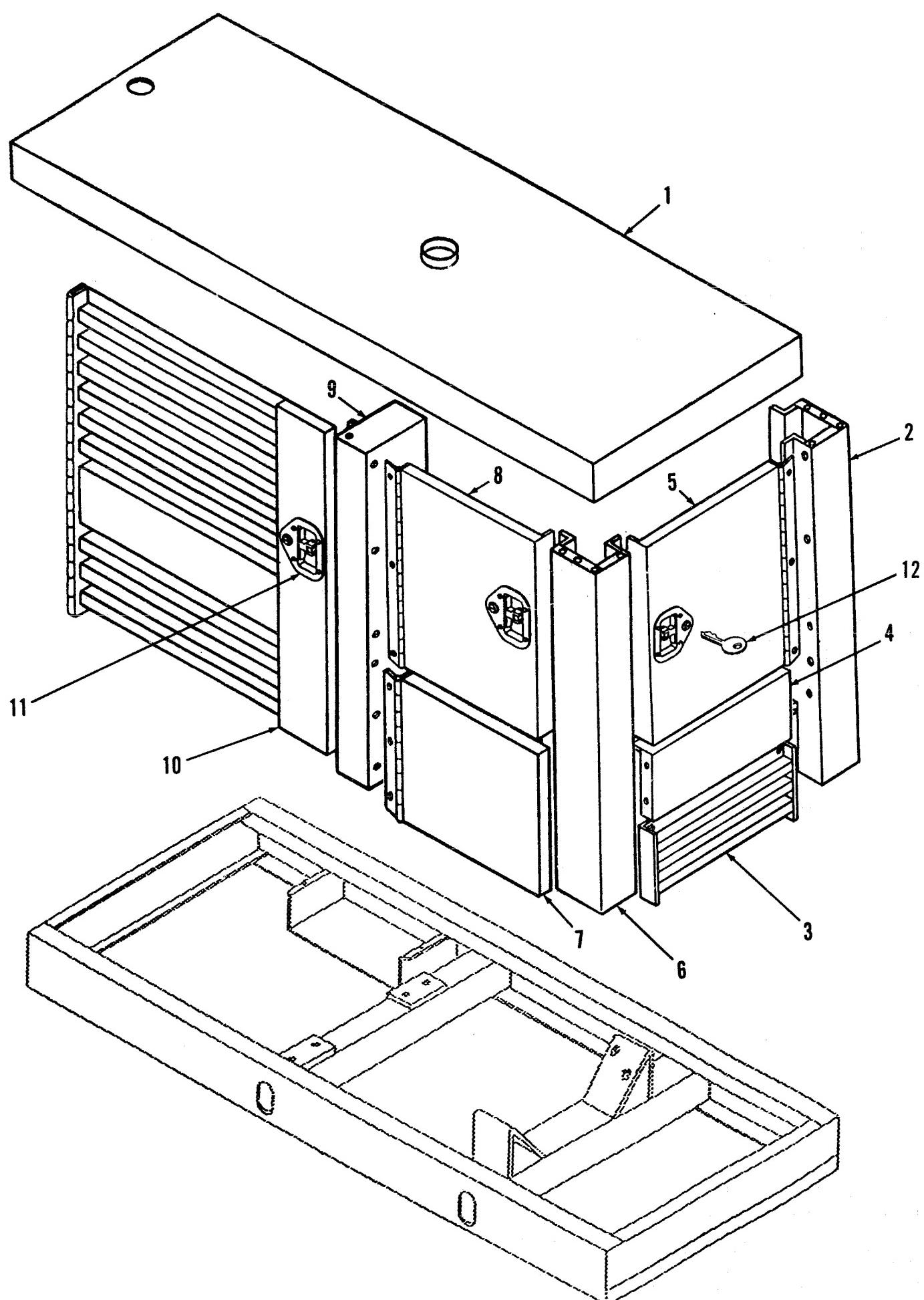
Heater - Engine Coolant



Heater - Engine Coolant

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0225	1	Line, Fuel - Flexible	21	850-0040	4	Washer, Lock - Spring
2	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)	22	309-0307	1	Switch, Pressure
3	505-0763	1	Cross, Pipe (1/8 NPT)	23	502-0054	1	Elbow, Pipe - Street, 90°, Brass (1/4 NPT)
4	505-0098	1	Nipple, Pipe - Close (1/8 NPT x 3/4"LG)	24	333-0224	1	Bracket, Mounting - Pressure Switch
5	503-0183	4	Clamp, Hose		812-0079	4	Screw, Machine - Round Head (#8-32 x 1/2")
6	503-0832	1	Hose, Rubber (5/8"ID x 12"LG)		850-0025	4	Washer, Lock - Spring (#8)
7	503-0843	1	Hose, Rubber (5/8"ID x 40"LG)	25			Contactor, Electrical
8	502-0613	2	Connector, Hose (1/4 x 5/8 ID)		307-1460	1	230 VAC, 3 Pole
10	502-0942	2	Elbow, Pipe - 90° (3/8 NPT)		307-1164	1	460 VAC, 3 Pole
12	505-0455	2	Bushing, Reducer - Hex (1 NPT x 3/8 NPT)	26	821-0016	4	Screw, Self-locking - Hex Washer Head (5/16-18 x 3/4")
13	331-0027	6	Connector, Romex	27	870-0257	4	Nut, Self-locking - hex Washer Head (5/16-18)
14	NFS		Cord, Electrical (2-#14, Type SO, 600 Volt)	28	130-1192	2	Bracket, Mounting - Heater
15	NFS		Cable, Electrical (3-#12 or 4-#14, Type SO, 600 Volt)	29	504-0003	1	Cock, Drain (1/4 NPT)
16			Terminals (Select as Required)	30			Heater, Electrical - Engine Coolant
	332-0014	4	#10				2000 Watt, 115 VAC, 1 Phase
	332-0149	4	#8	333-0158	1		2000 Watt, 208 VAC, 1 Phase
	323-0027	1	wire Nut	333-0167	1		2000 Watt, 208 VAC, 3 Phase
17	309-0304	1	Switch, Thermostatic (on 80°, 106°F)	333-0148	1		2000 Watt, 240 VAC, 1 Phase
18	505-0004	1	Nipple, Pipe - Close (1 NPT x 1-1/2"LG)	333-0141	1		2000 Watt, 380 VAC, 1 Phase
19	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")	333-0176	1		2000 Watt, 380 VAC, 1 Phase
20	862-0001	4	Nut, Hex (1/4-20)	333-0170	1		2000 Watt, 480 VAC, 1 Phase
				333-0147	1		2000 Watt, 440 VAC, 3 Phase
				333-0146	1		2500 Watt, 440 VAC, 3 Phase
				333-0172	1		

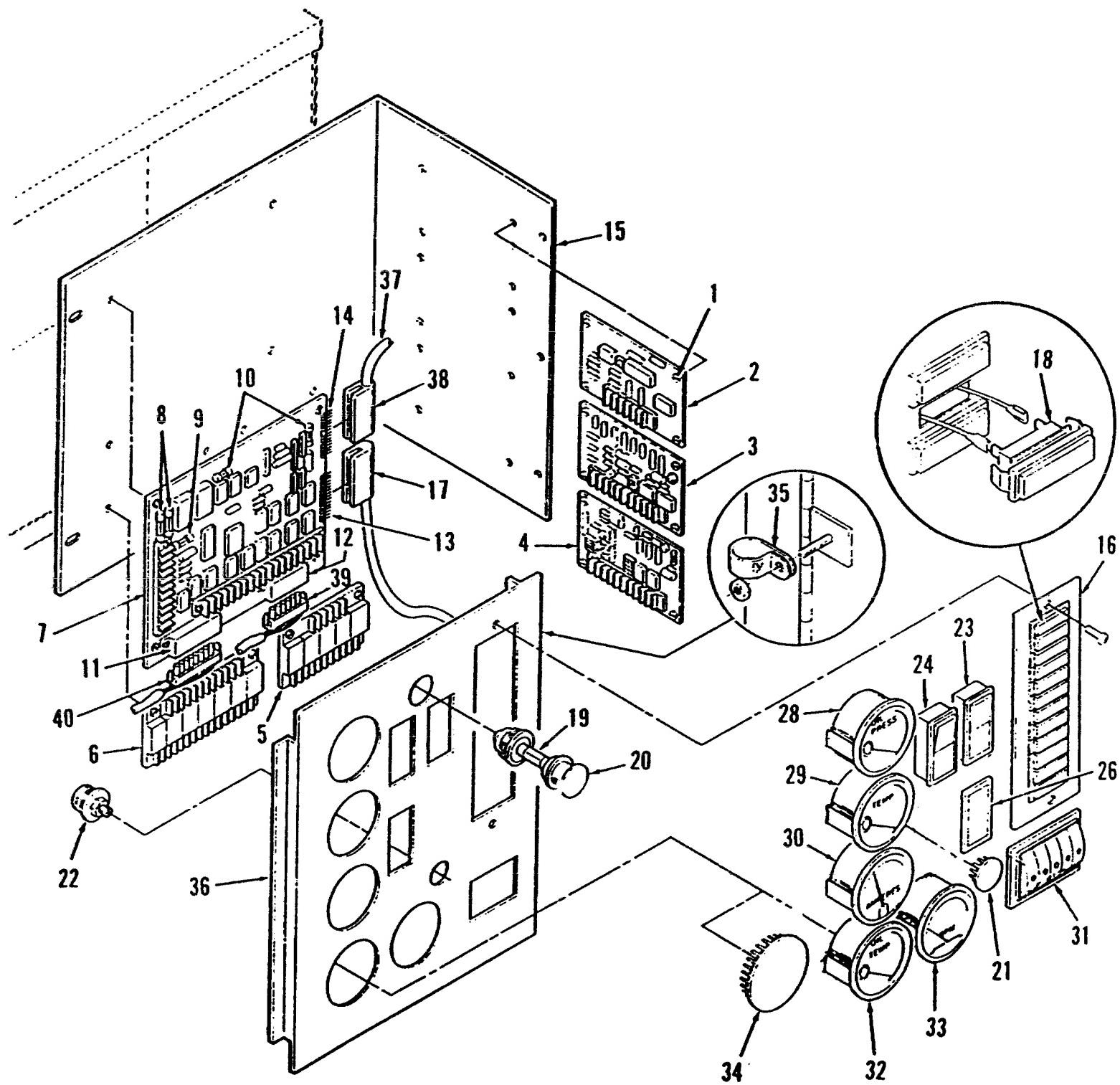
Set Housing



Set Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-3772 821-0029	1 14	Top, Housing Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")	7	405-3984 819-1083	1 3	Door, Access Right Hand (Shown)
	870-0281	14	Nut, Self-Locking - Hex (3/8-16)		405-3985 819-1083	1 3	Screw, Pan Head - Recessed (1/4-20 x 7/16")
2	405-3859-02 821-0029	1 2	Post, Housing - Rear (Left Hand) Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")	8	405-3950 819-1083	2 6	Left Hand (Not Illustrated) Screw, Pan Head - Recessed (1/4-20 x 7/16")
	870-0281	2	Nut, Self-Locking - Hex (3/8-16)	9	405-3858-01 821-0029	1 2	Door, Side Screw, Pan Head - Recessed (1/4-20 x 7/16")
3	405-3833 821-0014	1 4	Grille Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")	405-3858-02 821-0029	1 2	Post, Housing Center Right Hand (Shown) Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")	
4	405-3828 821-0014	1 4	Panel, Housing (Rear) Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")	405-3864 819-1102	1 5	Left Hand (Not Illustrated) Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")	
	870-0257	4	Nut, Self-Locking - Hex (5/16-18)	405-4032 819-1102	1 5	Door, Grille Right Hand (Shown) Screw, Pan Head - Recessed (5/16-18 x 1/2")	
5	405-3952 819-1083	1 3	Door, Control Screw, Pan Head - Recessed (1/4-20 x 7/16")	11	406-0626 815-0607 870-0235	5 20 20	Left Hand (Not Illustrated) Screw, Pan Head - Recessed (5/16-18 x 1/2")
6	405-3859-01 821-0029	1 2	Post, Housing - Rear (Right Hand) Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")	12	406-0577	1	Handle, Housing Screw, Oval Head (#8-32 x 3/8")
	870-0281	2	Nut, Self-Locking - Hex (3/8-16)				Nut, Self-Locking - Hex (#8-32)
							Key

Engine Control

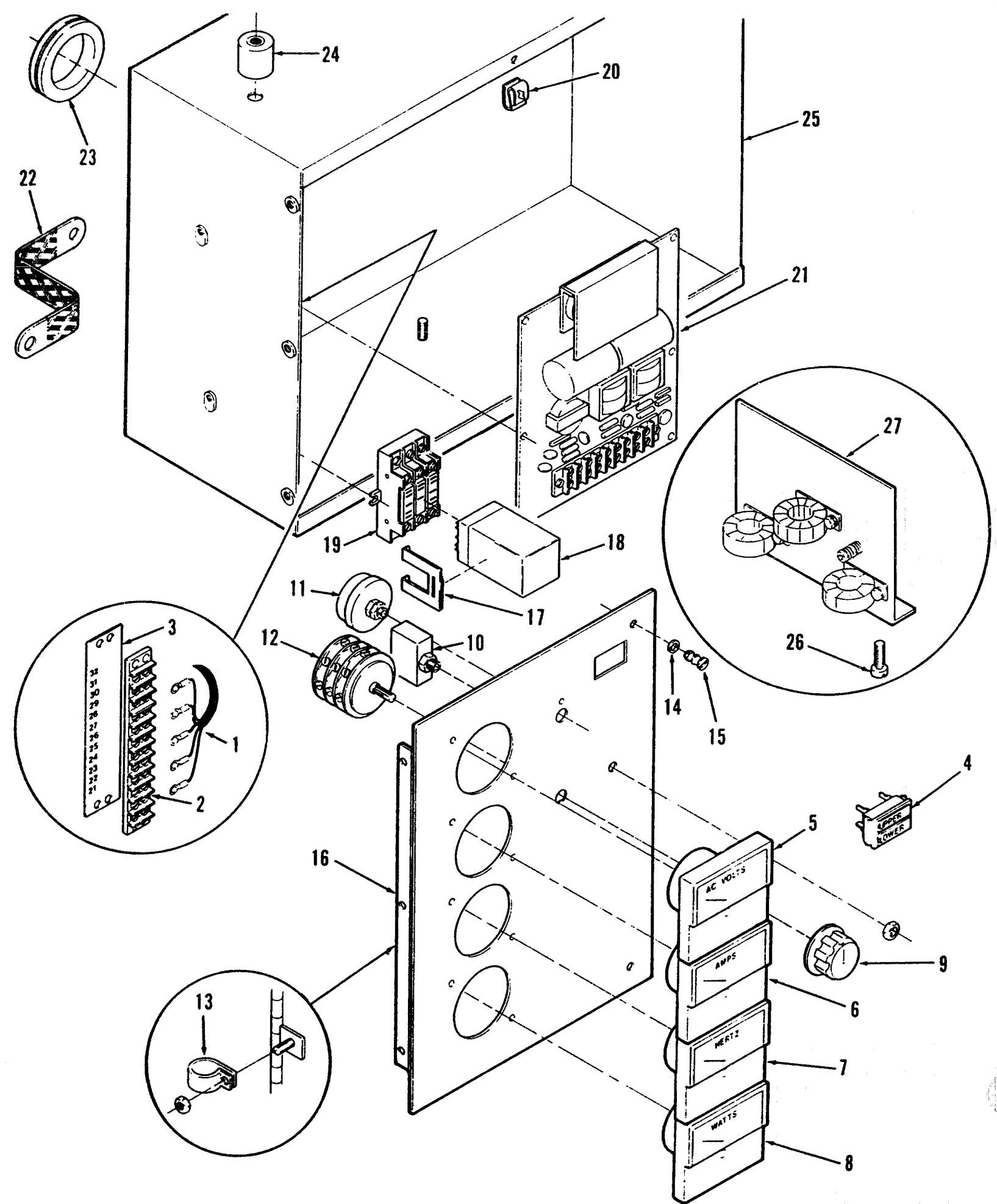


Engine Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	24	Screw, Machine ~ Round Head With IT Lock Washer (#6-32 x 1/2")	17	323-1310	1	Housing, Connector - 13 Pin (J3)
2	300-2897	1	Board - Time Delay, Start/Stop - 12 VDC (A15)	18	323-1302	13	Contact, Pin
3			Board - Magnetic Sensor, Start Disconnect/over Speed Sensor (A16)	19	322-0369-01	1	Lamp, Incandescent - 1/3 Watt, 14 VDC
	300-2901	1	Standard	20	322-0361	1	Lamp, Incandescent (DS11), 14 VDC
	300-2902	1	Precision	21	517-0131	1	Holder, Lamp
4	300-2905	1	Board - Over-Under Voltage Sensor - 12 VDC (A17)	22	151-0402	1	Plug, Button
5	300-2855	1	Board - 5 Relay 12 VDC (A13)	23	308-0785	1	Potentiometer - Speed Control (R11)
6	300-2862	1	Board - 7 Relay 12 VDC (A14)	24	308-0784	1	Switch, Push - Reset/Panel Lamp (S11)
7			Board - Engine Monitor (A11) (Includes Fuses and Connectors)	26	301-6257	1	Switch, Push - Run/Stop/Remote (S12)
	300-2807	1	12 VDC, 2 Light	28	193-0352	1	Cover - Switch Mounting Hole
	300-2809	1	12 VDC, 7 Light	29	193-0351	1	Gauge, Pressure - Oil (M11)
	300-2811	1	12 VDC, 12 Light	30	302-1790	1	Gauge, Temperature - Water (M12)
8	321-0270	2	Fuse, Cartridge 20 Amp (F1, F2)	31	302-0885	1	Ammeter - DC (M13)
9	321-0231	1	Fuse, Cartridge 15 Amp (F3)	32	193-0330	1	Meter, Totalizing - Time (M14)
10	321-0094	2	Fuse, Cartridge 5 Amp (F4, F5)	33	302-1873-01	1	Gauge, Temperature - Oil (M15)
11	323-1305	1	Connector - 8 Pin (P1)	34	517-0221	1	Tachometer (M16)
12	323-1303	1	Connector - 6 Pin (P2)	35	332-0052	1	Plug, Button
13	323-1309	1	Connector - 13 Pin (P3)	36	870-0131	1	Clamp, Loop
14	323-1307	1	Connector - 12 Pin (P4)				Nut, Self-locking - Hex with ET Lock Washer (#10-32)
15	301-8851	1	Bracket, Mounting				Door, Control (Qty Meter Holes Indicated)
	821-0004	4	Screw, Self-locking - Hex Washer Head (#10-32 x 5/16")				5 Meter Holes
16			Module, Indicator ~ Fault (A12) (Includes Connector)				3 Meter Holes
	322-0358-01	1	12 VDC, 2 Light	37	338-1817	1	Harness, Wiring - DC (Includes Connector)
	322-0360-01	1	12 VDC, 12 Light	38	323-1308	1	Housing, Connector - 12 Pin (J4)
	815-0385	2	Screw, Machine ~ Round Head, Black (#6-32 x 1/2")	39	323-1302	12	Contact, Pin
	870-0183	2	Nut, Self-locking - Hex with ET Lock Washer (#6-32)	40	323-1304	1	*Housing, Connector - 6 Place
					323-1200	6	*Contact, Pin
					323-1306	1	*Housing, Connector - 8 Place
					323-1200	8	*Contact, Pin

* - Parts Included in Engine Wiring Harness.

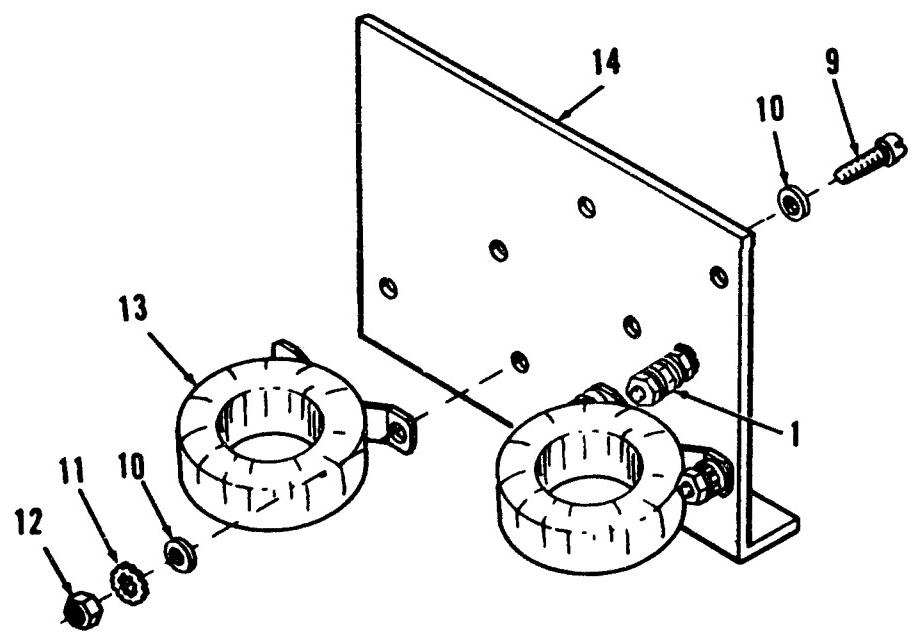
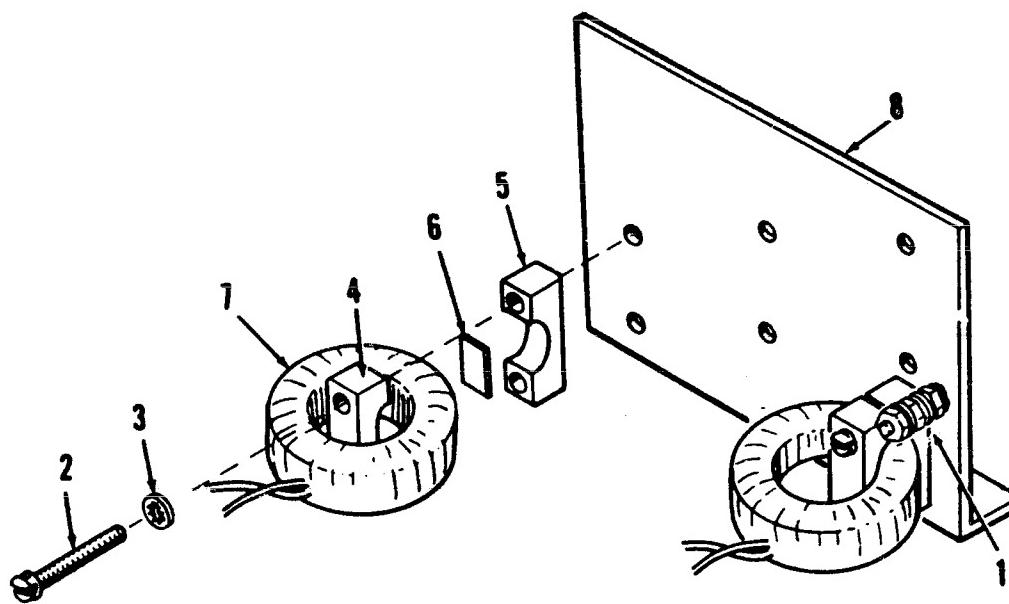
Generator Control



Generator Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring - (Includes Terminal Block)	17	307-1987	2	Clip - Relay
338-1818	1		Control with Meters	18	307-1058	1	Relay, 12 VDC (K21)
338-1853	1		Control without Meters	19	323-0804	1	Socket, Relay
812-0065	2		Screw, Machine - RH (#6-32 x 5/8")	815-0544		2	Screw, Machine - RH with IT Lock Washer (#6-32 x 1/2")
2	332-0607	1	Block, Terminal (TB1)	20	406-0332	2	Receptacle - Fasterner
3	332-2723	1	Strip, Marker	21	300-2880	1	Regulator, Voltage (VR21)
4	322-0363	1	Light, Indicator - Dual (DS21, DS22)		815-0544	6	Screw, Machine - RH with IT Lock Washer (#6-32 x 1/2")
5	302-1148	1	Voltmeter (M21)	22	337-0049	1	Strap, Electrical
6			Ammeter (M22) (Applicable Voltage Codes Indicated)	800-0024		1	Screw, Cap - Hex Hd (5/16-18 x 1/2")
	302-1691	1	0-100 Amp (Code 9)	856-0008		1	Washer, Lock - EIT (5/16")
	302-1684	1	0-150/300 Amp (Codes 15, 515)	23	508-0051	1	Grommet
7	302-1720	1	Meter, Frequency (M23)	24	402-0527	2	Mount, Vibration
		1	Wattmeter (M24) (See Separate page for Components)	800-0045		4	Screw, Cap - Hex Hd (5/16-18 x 3/8")
9	303-0032	1	Knob	850-0045		4	Washer, Lock - Spring (5/16")
10			Breaker, Circuit (CB21)	25	301-8065	1	Box, Control
	320-1121	1	Standard	26	821-0010	2	Screw, Self-locking - HWH (1/4-20 x 1/2")
	320-1438	1	With Aux Contact	27		1	Current Transformer (See Separate Page for Components)
11	303-0261	1	Rheostat (R21)				
12	308-0284	1	Switch, Rotary (S21)				
13	332-0052	1	Clamp, Loop				
	870-0131	1	Nut, Self-locking - Hex with ET Lock Washer (#10-32)				
14	406-0334	2	Clip - Fastener				
15	406-0333	2	Stud - Fastener				
16			Door, Control				
	301-9054-01	1	With 4 Meter Holes				
	301-9054-02	1	With 3 Meter Holes				
	301-9054-03	1	With No Meter Holes				
	821-0004	3	Screw, Self-locking - HWH (#10-32 x 5/16")				

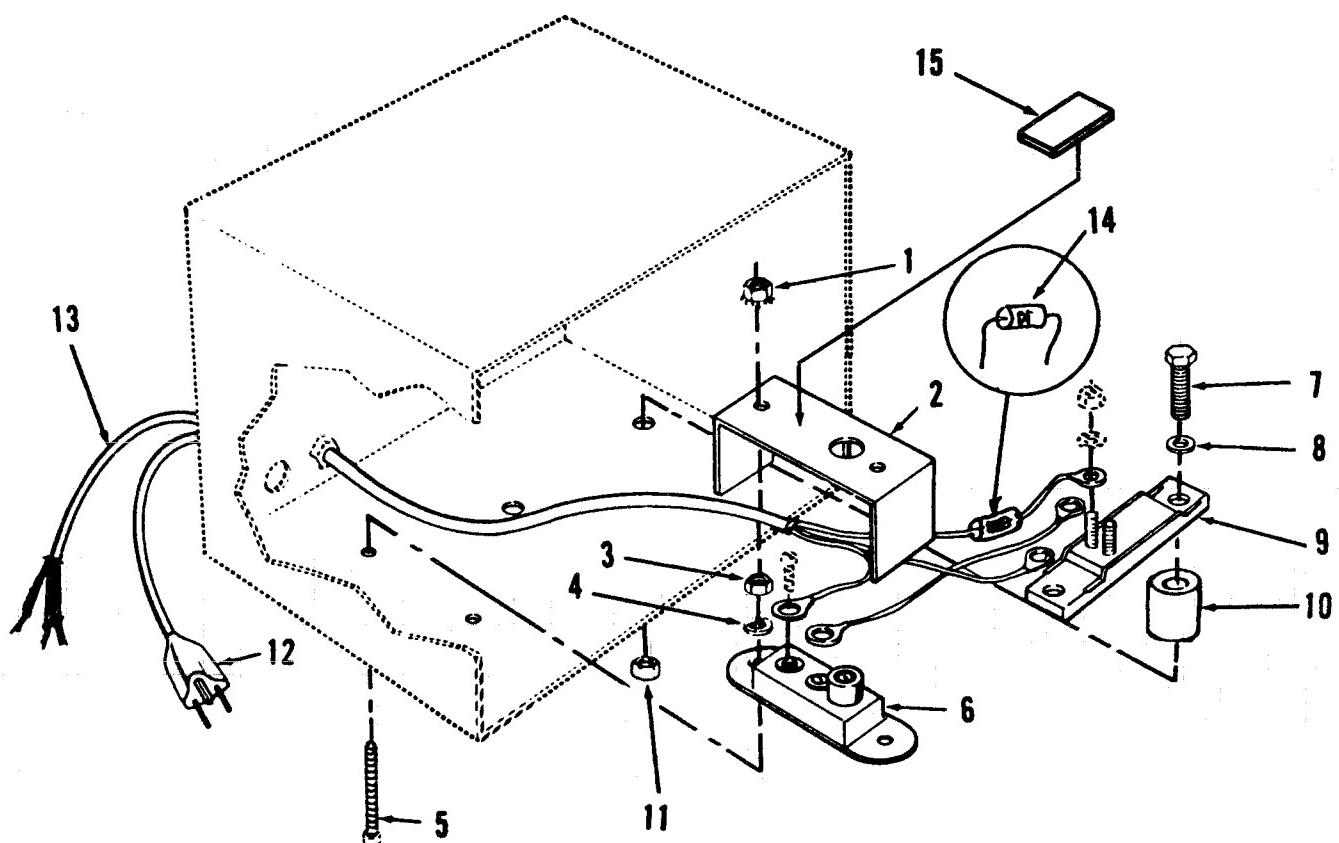
Current Transformer



Current Transformer

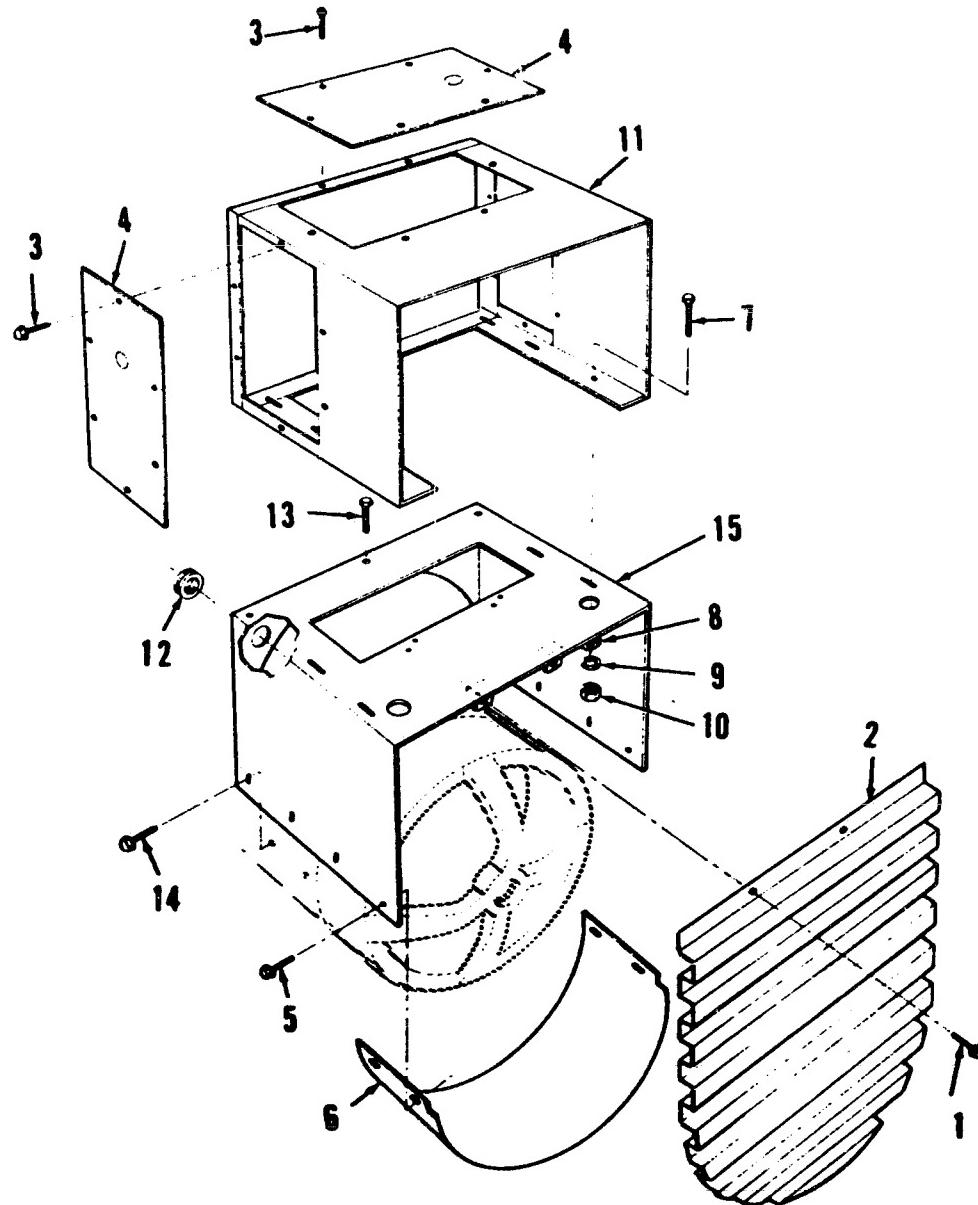
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0203	1	Ground Terminal Screw, Machine - Round Head, Brass (#10-32 x 7/8")	8	302-0729	1	Bracket, Mounting - Transformer
				9	813-0100	6	Screw, Machine - Round Head (#10-32 x 1/2")
871-0010	3	3	Nut, Hex - Brass (#10-32)	10	526-0008	6	Washer, Flat (13/64"ID x 7/16"OD x 1/32"THK)
856-0003	1	1	Washer, Lock - EIT (#10)	11	856-0003	6	Washer, Lock - FIT (#10)
854-0010	2	2	Washer, Lock - IT (#10)	12	870-0053	6	Nut, Hex (#10-32)
526-0049	2	2	Washer, Flat - Brass (13/64"ID x 7/32"OD x 1/32"THK)	13	302-0764	1	Bracket Mounting - Transformer
2	813-0110	6	Screw, Machine - Round Head (#10-32 x 2")	14			Transformer, Current with Mounting Feet
3	854-0010	6	Washer, Lock - IT (#10)	302-0864		3	Ratio (Ammeter Scale) 150/5 (0-75/0-150A)
4	302-0235	3	Clamp - Upper	302-0865		3	200/5 (0-100/0-200A)
5	302-0236	3	Clamp - Lower	302-0866		3	250/5 (0-150/0-300A)
6	302-0253	6	Shim	302-0608		3	400/5 (0-200/0-400A)
7			Transformer, Current Ratio (Ammeter Scale)	302-0547		3	500/5 (0-250/0-500A)
	302-0117	3	50/5 (0-50A)	302-0471		3	750/5 (0-375/0-750A)
	302-0076	3	75/5 (0-75A)				
	302-0078	3	100/5 (0-100A)				
	302-0079	3	150/5 (0-150A)				
	302-0106	3	200/5 (0-200A)				
	302-0209	3	250/5 (0-250A)				
	302-0107	3	300/5 (0-300A)				
	302-0382	3	400/5 (0-400A)				
	302-0372	3	500/5 (0-500A)				
	302-0385	3	750/5 (0-750A)				

Control Heater



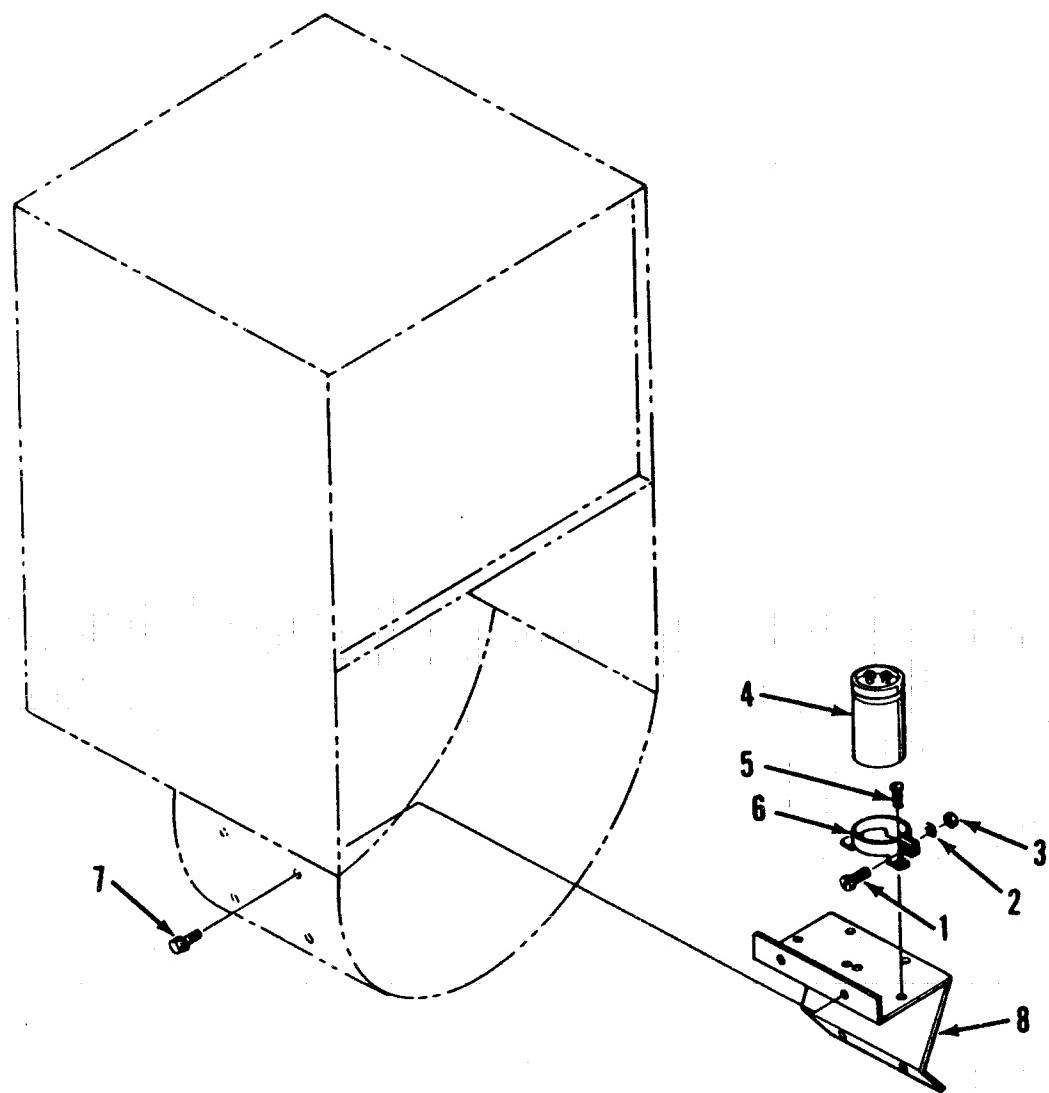
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-Locking - Hex (#6-32)	9	333-0151	1	Heater, Electrical 120VAC
2	301-1886	1	Cover		333-0378	1	240VAC
3	860-0006	1	Nut, Hex (#6-32)	10	130-1107	2	Spacer
4	854-0006	4	Washer, Lock - IT (#6)	11	870-0257	2	Nut, Self-Locking - Hex (5/16-18)
5	812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")	12	335-0161	1	Cable, Electrical (120VAC Application, 7' LG)
6	309-0128	1	Thermostat - Adjustable	13	338-2181	1	Harness, Wiring with Diode, Less Plug (240VAC Application)
7	800-0034	2	Screw, Cap - Hex Head (5/16-18 x 2-1/4")	14	357-0013	1	Diode
8	526-0113	2	Washer, Flat (5/16")	15	98-3232	1	Decal, Warning - Shock Hazard

Control Housing



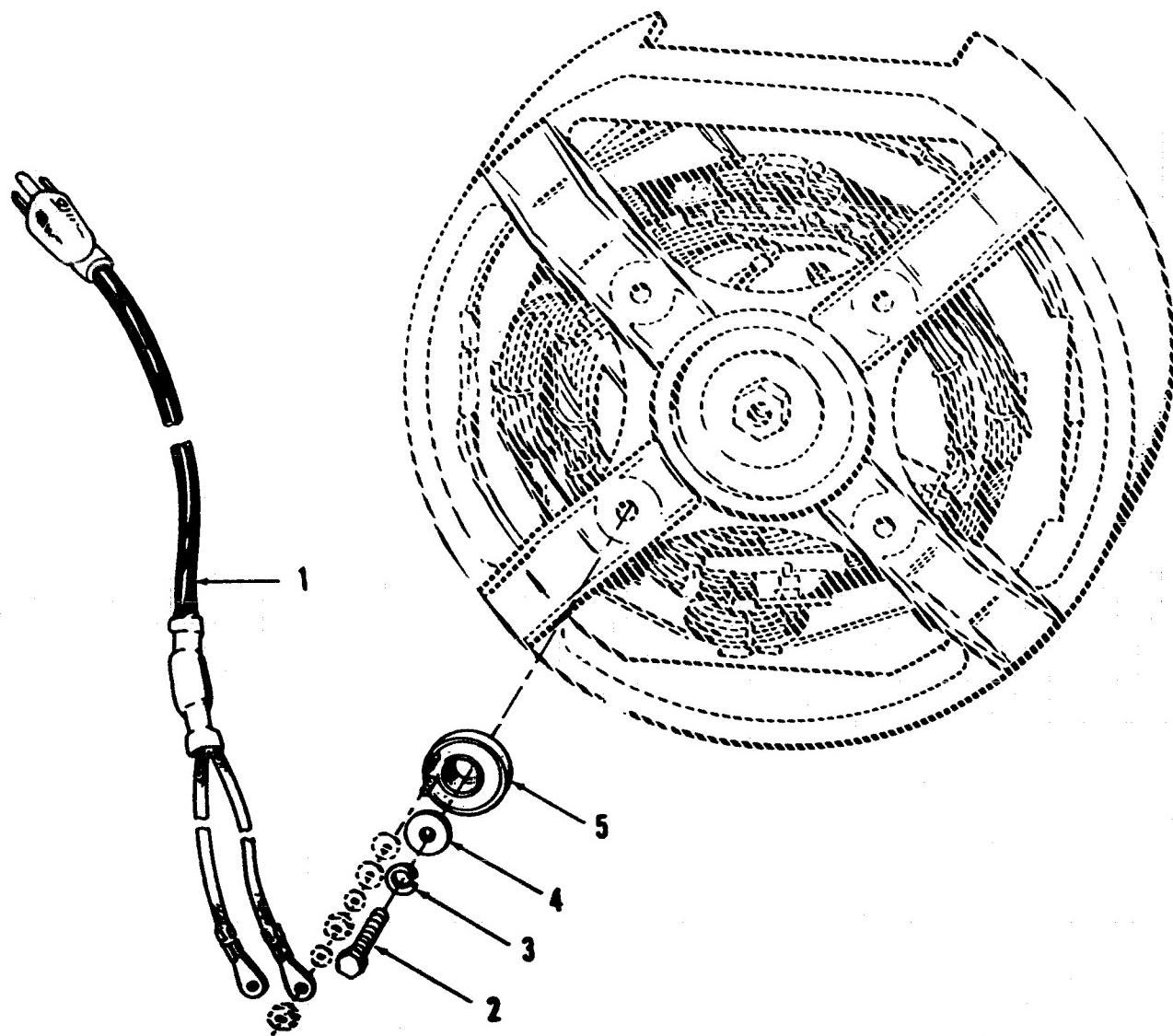
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	8	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")	8	856-0006	1	Washer, Lock - EIT (1/4")
2	234-0370	1	Grill, Air - Generator Inlet	9	526-0018	5	Washer, Flat (17/64" ID x 5/8" OD x 1/16" THK)
3	815-0350	18	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")	10	870-0212	6	Nut, Hex (1/4-20)
4	301-3156	3	Panel, Control Box	11	301-3155	1	Housing, Control Box
5	821-0010	4	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")	12	508-0051	1	Grommet
6	234-0361	1	Wrapper, End Bell	13	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")
7	821-0018	6	Screw, Self-Locking - Hex Washer Head (1/4-20 x 5/8")	14	821-0014	8	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
				15	301-3154	1	Saddle, Control Box Mounting

Capacitor Assembly



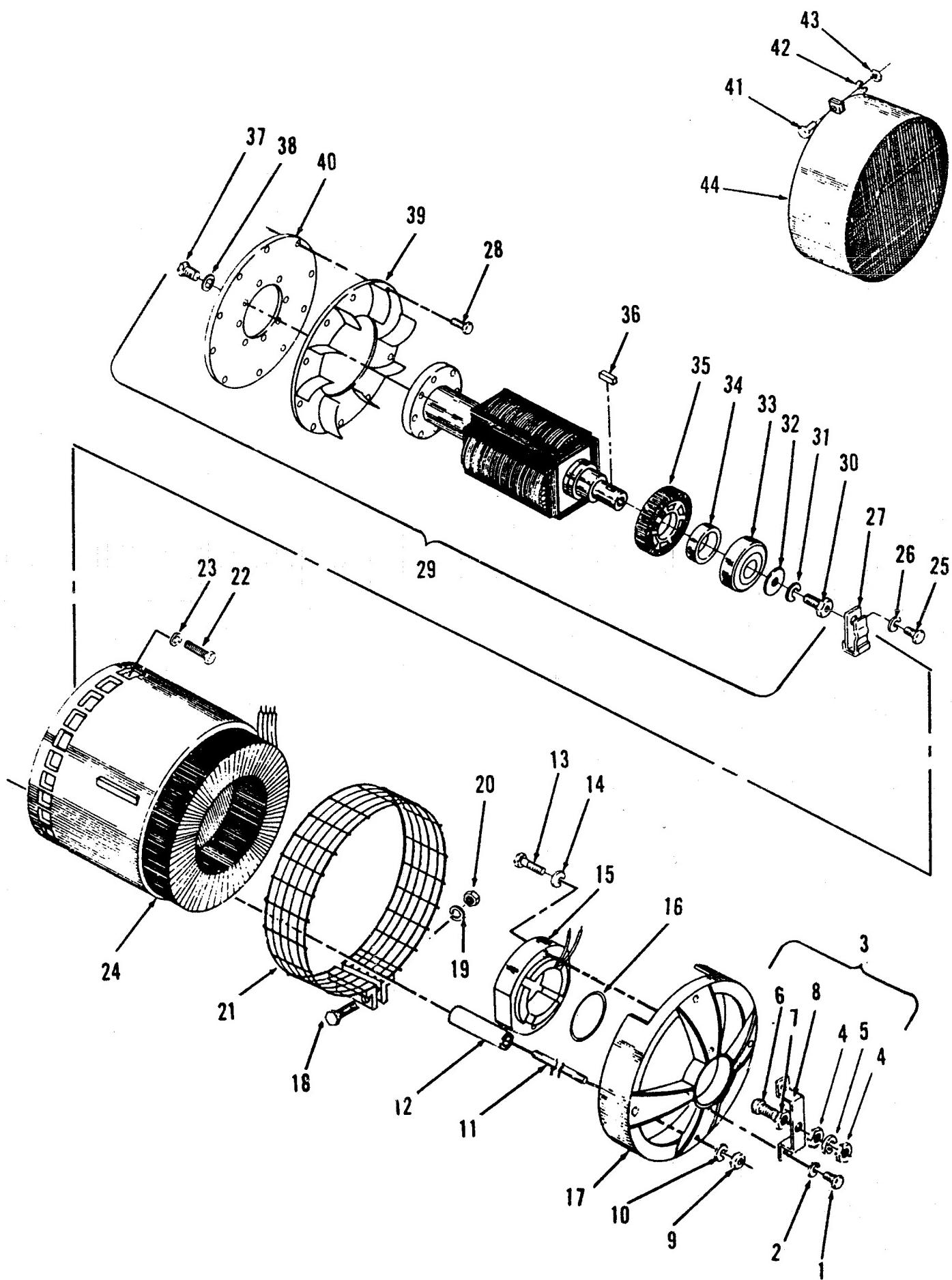
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0078	2	Screw, Machine - Round Head (#8-32 x 7/16")	6	356-0102	2	Clamp, Mounting - Capacitor
2	850-0025	2	Washer, Lock - Spring (#8)	7	821-0009	4	Screw, Self-Locking - Hex
3	861-0007	2	Nut, Square (#8-32)	8	356-0104	1	Washer Head (1/4-20 x 3/8")
4	356-0090	2	Capacitor, Fixed - Electrolytic (1300 MFD)				Bracket, Mounting - Capacitor
5	812-0078	6	Screw, Machine - Round Head (#8-32 x 7/16")				Assembly (Bracket Not Required for Square Output Boxes)

Generator Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable, Electrical (Includes Thermostat)	3	850-0038	1	Washer, Lock - Spring (1/4")
	335-0146	1	120 VAC	4	526-0158	1	Washer, Flat (1/4")
	335-0147	1	240 VAC	5	333-0059	1	Heater, Electrical
2	800-0004	1	Screw, Cap - Hex Head (1/4-20 x 5/8")		333-0192	1	125 Watt, 120 VAC
							200 Watt, 240 VAC

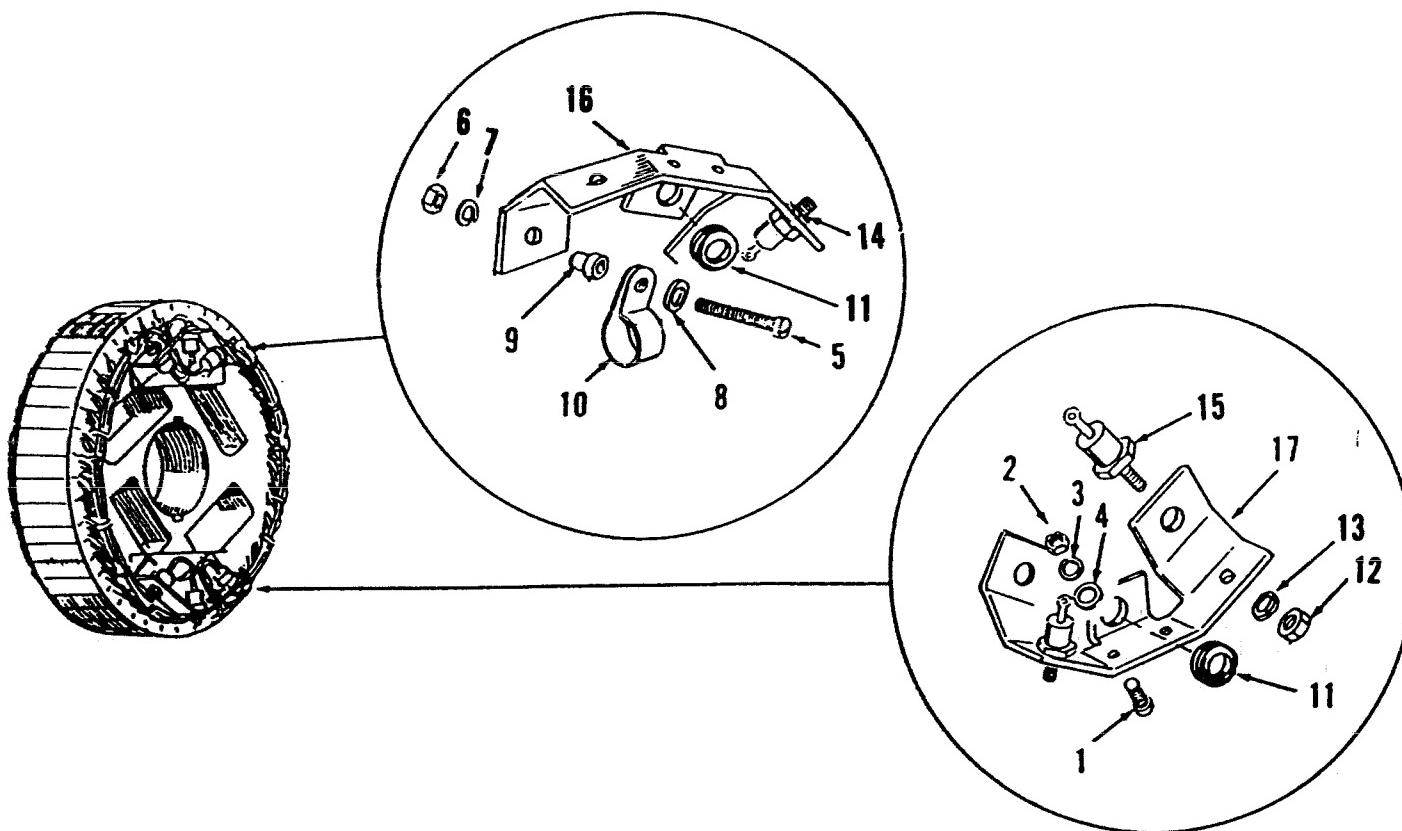
Generator



Generator

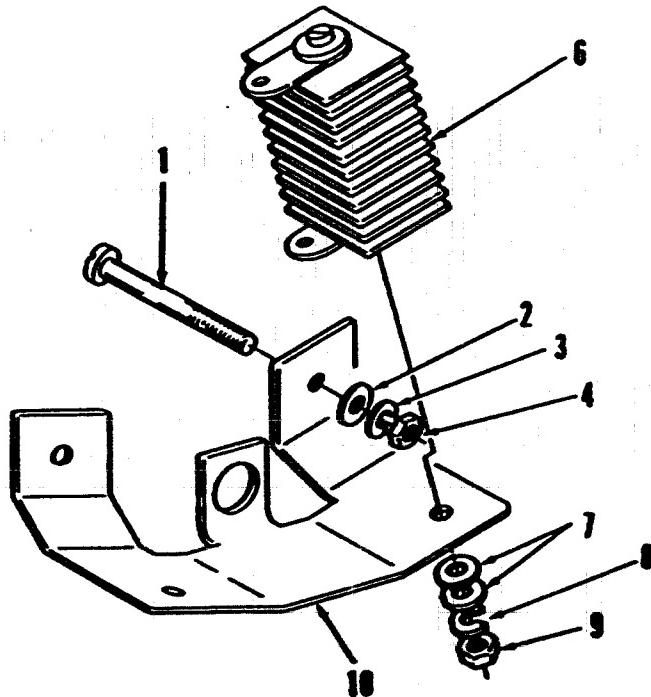
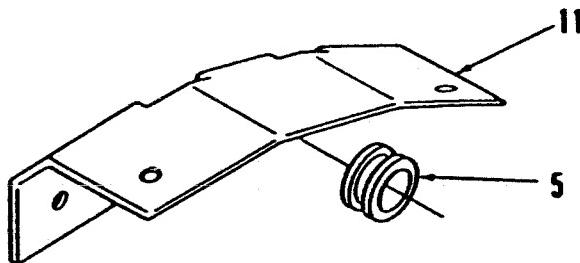
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	25	800-0048	1	Screw, Cap - Hex Head (3/8-16 x 3/4")
2	850-0040	2	Washer, Lock - Spring (1/4")	26	856-0010	1	Washer, Lock - EIT (3/8")
3	150-1456	1	Contact Assembly - Overspeed Switch (Includes Contact and Mounting Bracket)	27	150-0717	1	Switch, Overspeed
4	862-0001	2	Nut, Hex (1/4-20)	28	805-0019	8	Bolt, Place - Hex Head, Grade 8 (3/8-16 x 1-1/4")
5	853-0013	1	Washer, Lock - ET (1/4")	29			Rotor Assembly, Generator (Includes Fan, Drive Disk, Bearing, Exciter Rotor)
6	150-0723	1	Contact, Electrical				55/60kW
7	870-0250	1	Nut, Insulated				Code E, F, H, L
8	150-1356	1	Bracket, Mounting - Contact	201-2670		1	Code L Extended Stack
9	862-0011	4	Nut, Hex - Grade 8 (3/8-16)	201-2673		1	Code L Environmental Protected
10	850-0050	4	Washer, Lock - Spring (3/8")	201-2688		1	70kW
11			Stud (3/8-16 UNC x)				Code E, F, H, L
	520-0722	4	17-3/32"LG				Code L Extended Stack
	520-0723	4	17-15/16"LG	201-2672		1	Code L Environmental Protected
	520-0724	4	18-29/32"LG	201-2674		1	Screw, Cap - Hex Head, Modified W/Tapped Hole
	520-0726	4	20-1/16"LG	201-2690		1	Washer, Lock - Spring (3/4")
	520-0727	4	21-7/16"LG				Washer, Flat - Steel Alloy
	520-0728	4	22-15/16"LG	30	800-0513	1	(13/16"ID x 2"OD x 3/16"THK)
12	503-0611	4	Hose, Rubber				Bearing, Ball
13	800-0009	4	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	31	850-0079	1	Spacer, Sleeve
14	850-0040	4	Washer, Lock - Spring (1/4")	32	526-0238	1	Rotor, Assembly - Exciter
15			Stator, Exciter	33	510-0101	1	(See Separate Page for Components)
	220-2353	1	Standard	34	232-2102	1	Standard
	220-1774	1	Environmental Protected	35			Environmental Protected
16	509-0125	1	Seal, Oil - "O" Ring				Key, Machine (1/4" x 1/4" x 7/8")
17	211-0185	1	End Bell, Generator				Bolt, Place - Hex Head,
18	800-0008	2	Screw, Cap - Hex Head (1/4-20 x 1-1/4")	201-1739		1	Grade 8 (5/8-11 x 1-1/2")
19	850-0040	2	Washer, Lock - Spring (1/4")	201-1845		8	Washer, Flat - Hardened Steel
20	862-0001	2	Nut, Hex (1/4-20)	36	515-0145	1	(11/16"ID x 1-3/8"OD x 7/64"THK)
21	234-0368	1	Screen, Air	37	805-0035	8	Fan, Cooling - Generator
22	800-1050	8	Screw, Cap - Hex Head (3/8-16 x 1")	38	526-0259	1	Disk, Drive - Generator
23	850-0050	8	Washer, Lock - Spring (3/8")	39	205-0089	1	Screw, Cap - Hex Head
24			Stator Assembly, Generator 55/60kW	40	232-2078	1	(1/4-20 x 1-1/4")
	Not Available		Code E	41	800-0008	1	Washer, Lock - Spring (1/4")
	Not Available		Code F				Nut, Hex (1/4-20)
	220-1603	1	Code H	42	850-0040	1	Cover, End Bell
	220-1455	1	Code L	43	862-0001	1	(Housed Sets Only)
	220-1458	1	Code L Extended Stack	44	234-0369	1	
	220-1787	1	Code L Environmental Protected				
			70kW				
	220-2627	1	Code E				
	Not Available		Code F				
	220-1605	1	Code H				
	220-1457	1	Code L				
	220-1459	1	Code L Extended Stack				
	220-1789	1	Code L Environmental Protected				

Exciter Rotor Components



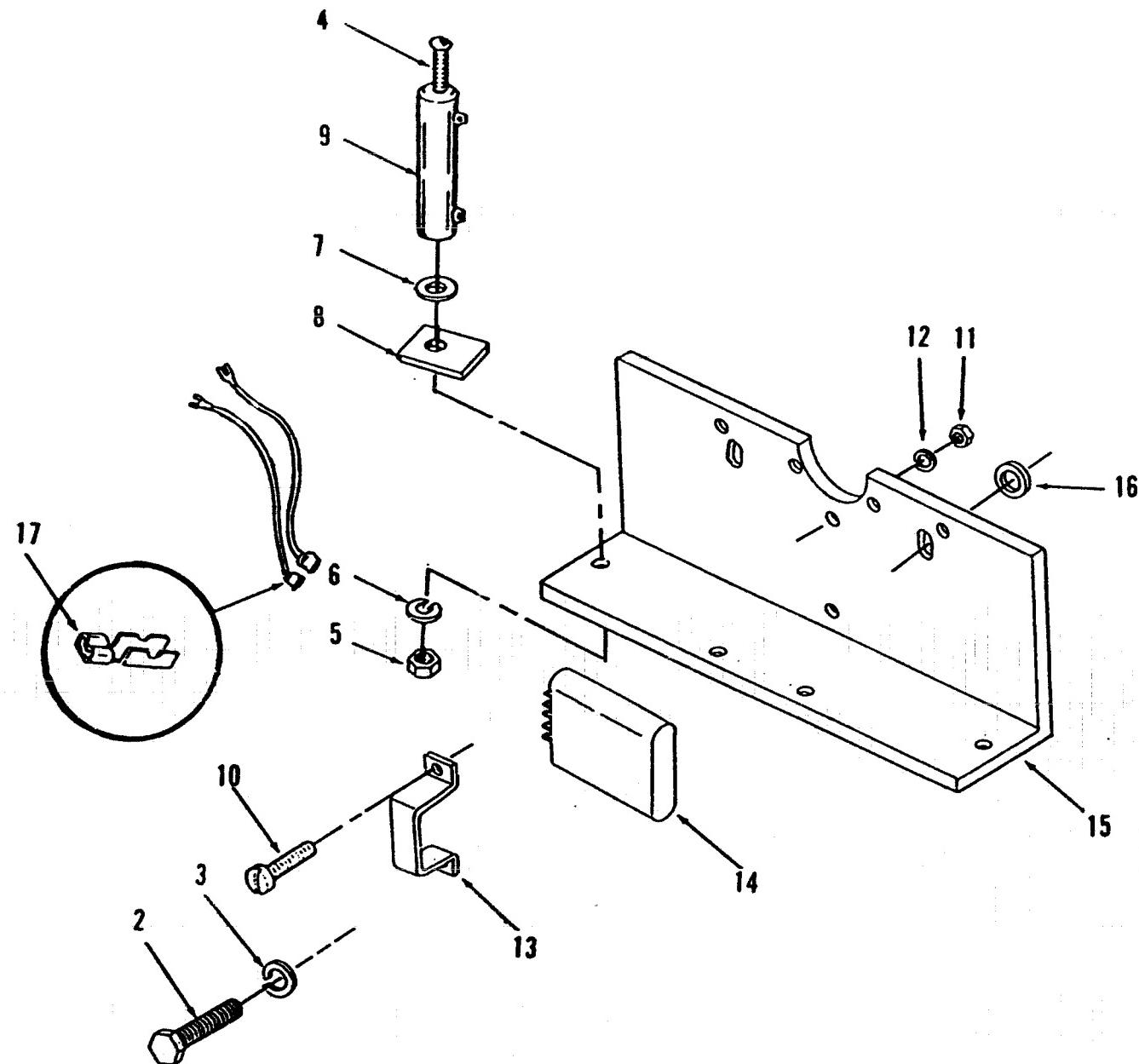
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Rotor, Exciter (Includes Heat Sinks and Diodes)	9	508-0187	4	Spacer, Stepped
201-1739	1	1	Standard	10	332-0050	2	Clamp, Loop
201-1845	1	1	Environmental Protected	11	508-0093	2	Grommet
1 813-0100	2	2	Screw, Machine - Round Head (#10-32 x 1/2")	12	870-0053	6	Nut, Hex (#10-32)
2 870-0053	2	2	Nut, Hex (#10-32)	13	850-0030	6	Washer, Lock - Spring (#10)
3 850-0030	2	2	Washer, Lock - Spring (#10)	14			Rectifier - Positive (CR1, CR2, CR3)
4 526-0008	2	2	Washer, Flat (13/64" ID x 7/16"OD x 1/32"THK)	15	358-0097	3	Standard
5 813-0110	4	4	Screw, Machine - Round Head (#10-32 x 2")	358-0044	3	Environmental Protected	
6 870-0053	4	4	Nut, Hex (#10-32)	16	358-0096	3	Rectifier - Negative (CR4, CR5, CR6)
7 850-0030	4	4	Washer, Lock - Spring (#10)	358-0043	3	Standard	
8 526-0009	4	4	Washer, Flat (#10)	17	363-0054	1	Environmental Protected
				17	363-0055	1	Sink, Heat Sink, Heat

Voltage Suppressor Components



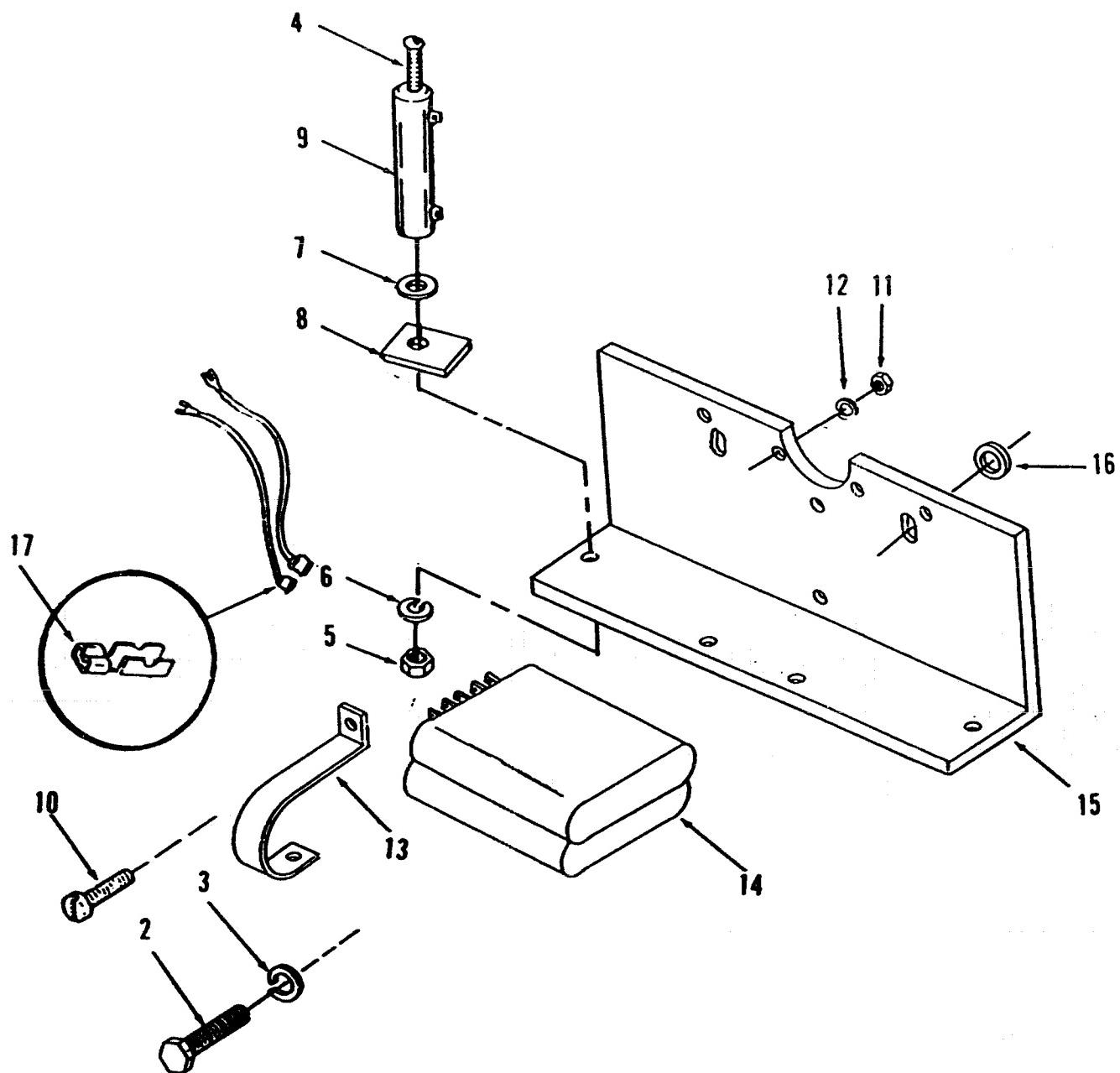
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	232-2445 813-0112	1 4	Suppressor, Voltage Screw, Machine - Round Head (#10-32 x 2-1/2")	6	305-0526 526-0140	1 4	Set, Voltage Suppressor Washer, Flat (#10)
2	526-0140	4	Washer, Flat (#10)	7	850-0030	4	Washer, Lock - Spring (#10)
3	850-0030	4	Washer, Lock - Spring (#10)	8	870-0053	4	Nut, Hex (#10-32)
4	870-0053	4	Nut, Hex (#10-32)	9	363-0054	1	Sink, Heat
5	508-0093	2	Grommet	10	363-0055	1	Sink, Heat

Voltage Regulator Filter



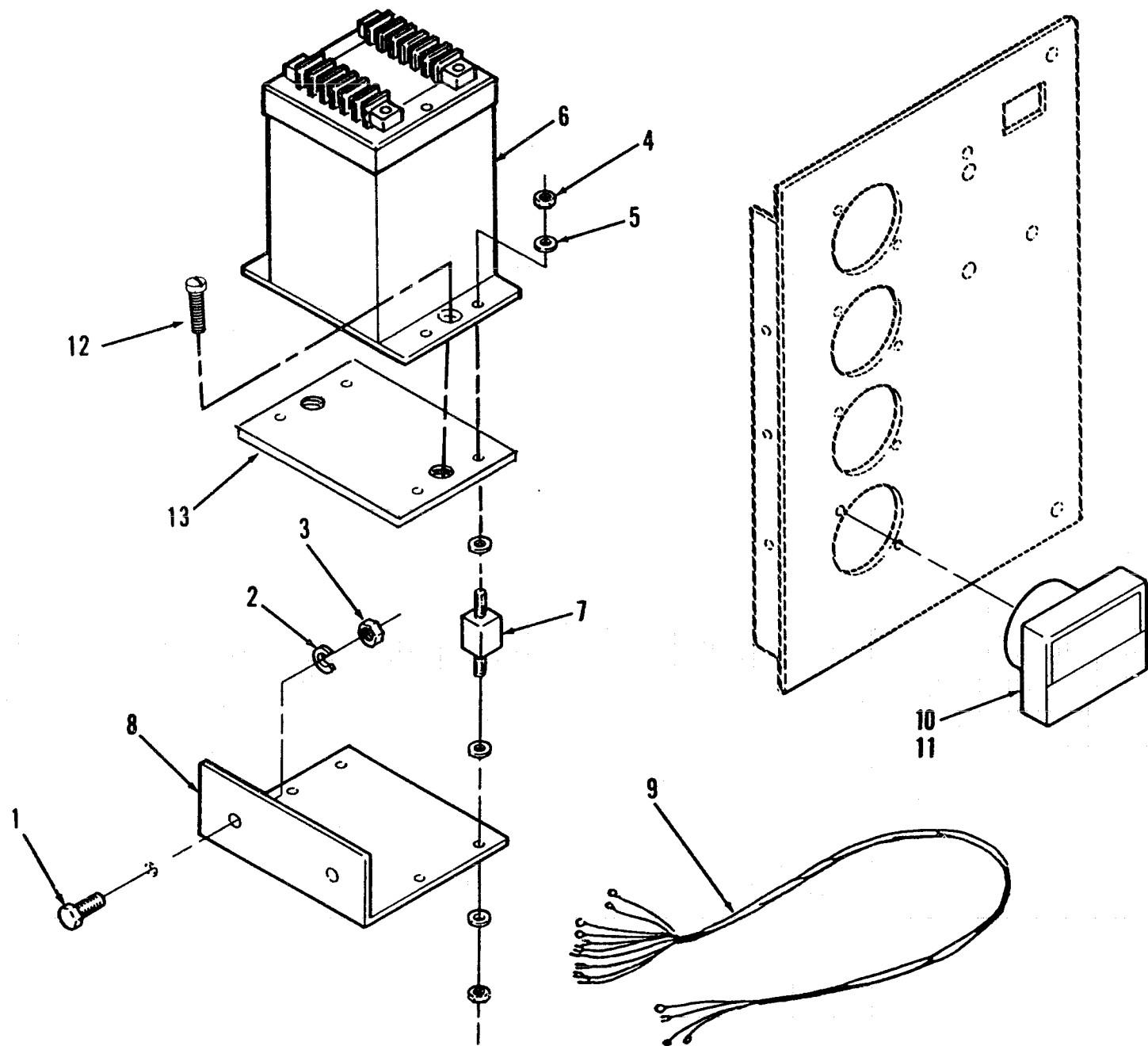
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
2	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	11	870-0053	2	Nut, Hex (#10-32)
3	850-0040	2	Washer, Lock - Spring (1/4")	12	850-0030	2	Washer, Lock - Spring (#10)
4	812-0165	2	Screw, Machine - Round Head (1/4-20 x 4-1/2")	13	312-0189	1	Bracket, Mounting
5	862-0001	2	Nut, Hex (1/4-20)	14	312-0188	1	Capacitor
6	850-0040	2	Washer, Lock - Spring (1/4")	15	232-2218	1	Bracket
7	304-0427	2	Washer, Centering	16	526-0018	15	Washer, Flat (1/4")
8	304-0292	2	Insulator	17	332-0529	4	Terminals Bare (14-18 AWG)
9	354-0025	1	Resistor		332-1279	8	Insulated (14-18 AWG)
10	813-0098	2	Screw, Machine - Round Head (#10-32 x 3/8")				

**Voltage Regulator Filter
Heavy Duty**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
2	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	11	870-0053	4	Nut, Hex (#10-32)
3	850-0040	2	Washer, Lock - Spring (1/4")	12	850-0030	4	Washer, Lock - Spring (#10)
4	812-0165	2	Screw, Machine - Round Head (1/4-20 x 4-1/2")	13	370-0007	2	Strap, Mounting
5	862-0001	2	Nut, Hex (1/4-20)	14	312-0188	2	Capacitor
6	850-0040	2	Washer, Lock - Spring (1/4")	15	232-2218	1	Bracket
7	304-0427	2	Washer, Centering	16	526-0018	15	Washer, Flat (1/4")
8	304-0292	2	Insulator	17	332-0529	8	Terminals Bare (14-18 AWG)
9	354-0025	1	Resistor		332-1279	16	Insulated (14-18 AWG)
10	813-0098	4	Screw, Machine - Round Head (#10-32 x 3/8")				

Wattmeter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Self-locking - HWH (5/16-18 x 1/2")	8	301-6987	1	Bracket, Mounting
2	850-0045	2	Washer, Lock - Spring (5/16")	9	338-1936	1	Harness, Wiring
3	862-0014	2	Nut, Hex (5/16-18)	10	302-1722	1	Meter, Watt (Less Dial)
4	860-0008	8	Nut, Hex (#8-32)	11	302-1721-02	1	Dial, Wattmeter
5	856-0002	16	Washer, Lock - EIT (#8)		302-1721-03	1	Scale 0-50 kW
6	302-1843	1	Transducer, Watt		302-1721-04	1	Scale 0-70 kW
	302-1833-01	1	Voltage Code E	12	813-0102	2	Scale 0-90 kW
7	402-0354	4	Voltage Codes H, L, Z				Screw, Machine - Round Head (#10-32 x 5/8")
			Mount, Shock	13	319-0030	1	Plate, Support - Transducer

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130-0802	47	130-3133	43	148-0626	37	155-0789	19
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130-0968	43	130-3137-02	43	148-0627	39	155-0989	19
130-0969	43	130-3138	43	148-0636	29	155-0997	19
130-0970	43	130-3144	43	148-0636	33	155-1372	15
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